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215A

MEMOIRS

OF THE

MEDICAL SOCIETY

OF

LONDON.

INSTITUTED IN THE YEAR 1773.

VOL. II.

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1794.

2154

PREFACE.

THE favourable reception of our former Volume, and the recent communication of many valuable eſſays, have induced the Society to publiſh another; which they hope will not be leſs acceptable to the community.

The Plan of the Society, equally liberal and ſalutary in its object, has engaged the attention of a ſcientific world; a very conſiderable number of literary characters, both at home and abroad, having evinced their approbation, by requeſting to become members of it; and by offering to it the reſult of their experience. And here we cannot but ac-

knowledge with pleaſure the favours of our Correſponding Members, who may reſt aſ-ſured that no medical communication eſcapes the notice of the Society; and that, as the third volume is now preparing for the preſs, the Eſſays adjudged for Publication, which could not be comprized in the preceding, will be inſerted in the ſubſequent volumes, with as much diſpatch as the importance of ſuch publications may admit.

Many Correſponding Members having politely requeſted to know what ſubſcriptions are due to the Society upon their admiſſion, we think it proper here to remark, that the diſtinction conferred by the Society, entails no expence on our correſpondents, being the reſult of the high ſenſe the Society entertain of their medical abilities. The Society, however, having founded a Medical Library, donations to promote this object of their inſtitution, will be gratefully accepted.

Beſides

2151

Besides the Fothergillian Medal, which is given to the Author of the best Essay in answer to the Prize Question proposed by the Society, two Silver Medals are annually adjudged; one to the Author of the best Essay read before the Society within the year, written by a Fellow*; the second, for the best Essay by any other person.

Two silver medals were presented last year:

One to JOSHUA WALKER, M. D. Physician to the General Infirmary at Leeds, and C. M. S. for his Memoir on the Atrophia Lactantium: an endemial disease prevalent in and about Leeds, in Yorkshire:

* Any member who resides within seven miles of London.

The other to Mr. JOHN SHERWEN, of Enfield, Surgeon, and C. M. S. for his Hiſtory of the Scirrho-contracted Rectum ; and Memoirs on the Effects of Emetic Tartar, and of Arſenic, by Abſorption.

The firſt of theſe Eſſays is the fourth Article ; and the three laſt form the ſecond, twenty-fourth, and twenty-fifth Articles of the preſent Volume.

The ſilver Medals of the preſent year were adjudged, one to THOMAS PERCIVAL, M. D. of Mancheſter : his papers, containing "Experiments on the Solvent Powers of Camphor, and other Miſcellaneous Communications ;" and "Medical Cautions and Remarks, particularly relative to Pulmonary Diſorders," are the 5th and 26th Articles of this Volume.

The

The other to Mr. HENRY FEARON, Surgeon. His paper, entitled "Obſervations "on Cancers," is the 38th Article of this Volume.

It may not be improper here to mention, that the Directors of the Humane Society of London having propoſed a gold and a ſilver Medal for the beſt original Eſſays on Suſpended Animation, came to the following Reſolution on the 9th of July 1787:

"That the Medical Society of London be "reſpectfully requeſted to be the Adjudica- "tors of the firſt Prize Medals, for the beſt "original Eſſays on Suſpended Animation, "which are to be adjudged the ſecond week "in March 1788; and that the Regiſter "tranſmit this unanimous Reſolution to the "Medical Society, and report their anſwer

" to the next meeting of the Humane So-
" ciety."

Agreeably to this requeſt the deciſion was made, and the Medals publicly delivered to the ſucceſsful Candidates, in the Society's houſe, on the 26th day of March, 1788.

In recording theſe Tranſactions of the Medical Society, we truſt every Member will feel himſelf more warmly intereſted in the ſupport and promotion of the great object of its inſtitution,——THE EXTENSION OF MEDICAL SCIENCE: in which the honour of our profeſſion, and the happineſs of the community are inſeparably connected.

CONTENTS

CONTENTS

OF THE

SECOND VOLUME.

ARTICLE I.

OF the Hydrophobia. From a Greek Manuſcript in the Poſſeſſion of James Sims, M. D. Preſident of the Medical Society of London; with a Tranſlation by the ſame. page 1

ARTICLE II.

Obſervations on the Scirrho-contracted Rectum: By John Sherwen, of Enfield, Surgeon, and C. M. S. Communicated by J. C. Lettſom, M. D. &c. p. 9

ARTICLE

x CONTENTS.

ARTICLE III.

Hiſtory of two Caſes of Hydatides Renales. By J. C. Lettſom, M. D. &c. p. 32

ARTICLE IV.

Some Remarks on the Prevalence of the Atrophia Lactantium. Communicated to J. C. Lettſom, M. D. &c. by Joſhua Walker, M. D. C. M. S. Phyſician to the General Infirmary at Leeds. p. 43

ARTICLE V.

Experiments on the Solvent Powers of Camphor; and other Miſcellaneous Communications. In a Letter from Dr. Percival to Dr. Lettſom. p. 54

ARTICLE VI.

Remarks on Aſcaris Lumbricoides. By John Church, A. M. F. M. S. Iſlington, Surgeon. p. 63

ARTICLE VII.

Caſe of a Patient who diſcharged the Pupa of the Muſca Cibaria. By W. White, M. D. of York, F. R. S. and C. M. S. In a Letter to J. C. Lettſom, M. D.

M. D. &c. with Additional Obſervations by J. Church, A. M. F. M. S. p. 67

ARTICLE VIII.

On the Efficacy of the Application of Cold Water to the Extremities, in a Caſe of obſtinate Conſtipation of the Bowels, with Remarks thereon. By William Falconer, M. D. F. R. S. and C. M. S. p. 73

ARTICLE IX.

On the Efficacy of the Gummi Rubrum Aſtringens Gambienſe (or, as ſome term it, the Gummi Kino) in Intermittent Fevers, and certain Præternatural Diſcharges. In a Letter to Dr. Lettſom, from Anthony Fothergill, M. D. F. R. S. and C. M. S. p. 93

ARTICLE X.

An Account of a Caſe of a Tetanus ſucceſsfully treated by the Uſe of Calomel, Bark, Wine, and the Cold Bath. In a Letter from Mr. John Thomas Shoaft, Student of Medicine at Annapolis, to Dr. Benjamin Ruſh, of Philadelphia. Communicated by Dr. Ruſh, in a Letter to Dr. J. C. Lettſom. p. 108

ARTICLE

ARTICLE XI.

An Account of a Cafe of Tetanus, fuccefsfully treated by the Ufe of Calomel, Bark, and Wine. In a Letter from Dr. Cornelius Conyngham, of Virginia, to the Honourable George Mafon, Efq. Member of the Convention of the United States, affembled in Philadelphia, 1787. Communicated by Dr. Benjamin Rufh to Dr. Lettfom p. 114

ARTICLE XII.

A Cafe of the Uterus lacerated by the Force of Labour Pains. By Jofeph Hooper, M. D. and F. M. S. p. 118

ARTICLE XIII.

Cafe of Vomiting in Pregnancy, fuccefsfully treated. In a Letter from W. Vaughan, M. D. and C. M. S. Leicefter, to J. C. Lettfom, M. D. &c. p. 125

ARTICLE XIV.

On the Ufe of Cantharides in Dropfical Complaints. By Samuel Farr, M. D. and C. M. S. Curry-Revel. In a Letter to J. C. Lettfom, M. D. &c. p. 132

ARTICLE

ARTICLE XV.

Case of Tetanus treated by Electricity. By John Hutchinson, M. D. Dublin. Communicated by James Sims, M. D. &c. p. 138

ARTICLE XVI.

Of the Digitalis Purpurea, in Hydropic Diseases. By J. C. Lettsom, M. D. &c. p. 145

ARTICLE XVII.

Cynanche Phæryngea, or Defect of Deglutition, from a straitening of the Œsophagus. By James Johnstone, M. D. C. M. S. &c. In a Letter to J. C. Lettsom, M. D. &c. p. 180

ARTICLE XVIII.

Cases of unusual Affection of the Tongue. By Mr. Thomas Hayes, Surgeon, Hampstead. In a Letter to J. C. Lettsom, M. D. &c. and by him communicated to the Medical Society, with a further Account of a similar Affection. p. 189

ARTICLE XIX.

Observations on the Palsy, by William Falconer, M. D. F. R. S. C. M. S. &c. p. 205

ARTICLE XX.

Cafe of an Ileus, with Obfervations on an Hydraulic Machine. By James Bureau, Surgeon, and F. M. S. p. 231

ARTICLE XXI.

Cafe of Inflammatory Conftipation of the Bowels fuccefsfully treated. By James Mackittrick Adair, M. D. In a Letter to William Falconer, M. D. F. R. S and C. M. S. and by him communicated to the Medical Society of London. p. 240

ARTICLE XXII.

An Attempt to afcertain the Powers concerned in the Act of Vomiting, by Experiments made in April, 1787, by Mr. John Haighton, Surgeon, and F. M. S. p. 254

ARTICLE XXIII.

A Cafe of an extraordinary Enlargement of the Abdomen, owing to a flefhy encyfted Tumour. By R. Pulteny, M. D. F. R. S. and C. M. S. In a Letter to J. C. Lettfom, M. D. &c. p. 265

ARTICLE

ARTICLE XXXVIII.

Obſervations on Cancers, by Henry Fearon, Surgeon to the Surry Diſpenſary, and F. M. S. p. 476

APPENDIX.

Some Account of the Effects of Lightning, by Mr. J. Parkinſon, of Hoxton, Surgeon, and F. M. S. p. 494

An Account of ſeveral Phœnomena, which occurred upon opening the Body of a Female Infant of premature Birth, who died in a few Hours after delivery. By T. Pole, Surgeon, F. M. S. To which is annexed an Engraving of the Uterus. p. 507

On the 24th of September, 1787, Mr. James Hill Hooper, Surgeon, and one of the Secretaries of the Medical Society, communicated a Caſe of an Hæmorrhage from an Ulcer on the Penis. p. 509

Two Experiments on the Mechaniſm of Vomiting; ſupplementary to a Paper lately read before this Society

Society on that Subject, and inserted at page 254
By Mr. John Haighton, Surgeon, F. M. S. p. 512

The Hiſtory of Hydatids diſcharged with the Urine. Communicated by Fielding Beſt Finney, Eſq. of Leek, Surgeon, and C. M. S. p. 516

ARTICLE XXIV.

An Account of a Singular Case of Obstructed Deglutition. By David Bayford, of Lewes, M. D. F. R. S. and C. M. S. Communicated by Nathaniel Hulme, M. D. F. M. S. Physician to the Charter-House, &c. p. 275

ARTICLE XXV.

Of the Cure of the Jaundice, by a particular Mode of Treatment. By James Sims, M. D. F. A. S. and President of the Medical Society. p. 287

ARTICLE XXVI.

Medical Cautions and Remarks; particularly relative to Pulmonary Disorders. By Thomas Percival, M. D. F. R. S. A. S. & C. M. S. London. F. R. S. and R. M. S. Edinburgh; Member of the Royal Medical Society at Paris; of the Royal Agricultural Society at Lyons, and of the American Philosophical Society of Philadelphia, &c. &c. Communicated by J. C. Lettsom. M. D. &c. p. 292

ARTICLE

ARTICLE XXVII.

Case of a Diseased Rectum. By J. C. Lettsom, M. D. &c. with a Dissection by W. Norris, Surgeon, and F. M. S.; and a Drawing of the same, by T. Pole, Surgeon, and F. M. S. p. 313

ARTICLE XXVIII.

Remarks on the Solvent Powers of Camphor. By W. Chamberlaine, Surgeon, and Secretary of the Medical Society. p. 321

ARTICLE XXIX.

History of a Case of Cicuta. In a Letter to Dr. Joseph Hooper, F. M. S. by his Brother, Mr. John Hooper, of Reading, Surgeon, and C. M. S. with Two Additional Communications, by the same. p. 332.

ARTICLE XXX.

A Case of Suppression of Urine, by an Enlargement of the Prostate Gland: With some brief General Strictures on the Use of the Male Catheter; respecting both the Stricture of the Instrument and the Mode of introducing it. By James Ware, Surgeon, and F. M. S. p. 340

ARTICLE

ARTICLE XXXI.

Case of a Scirrhous Œsophagus, by William Farquharson, of Edinburgh, M. D. and C. M. S. Fellow of the Royal College of Physicians of Edinburgh, and Corresponding Member of the Society of Scotch Antiquaries. Communicated by J. C. Lettsom, M. D. &c. - p. 391

ARTICLE XXXII.

History of a Case of Encysted Dropsy, with a Dissection. By Amos Winship, of Boston, Massachussets, M. D. and C. M. S. in a Letter to J. C. Lettsom, M. D. &c. p. 372

ARTICLE XXXIII.

An Account of a remarkable Affection from the Puncture of a Pin, cured by the liberal Use of Laudanum, with Antimonial Wine. By Thomas Pole, Surgeon, and F. M. S. p. 377

ARTICLE XXXIV.

Observations on the Effects of Emetic Tartar, by External Absorption. In a letter to J. C. Lettsom, M. D.

M. D. &c. by John Sherwen, Surgeon, and C. M. S. p. 390

ARTICLE XXXV.

Obſervations on the Effects of Arſenic, by External Abſorption, by John Sherwen, Surgeon, and C. M. S. Communicated by J. C. Lettſom, M. D. &c. p. 398

ARTICLE XXXVI.

Hints on the Management of Women in certain Caſes of Pregnancy. By Mr. James Lucas, one of the Surgeons of the General Infirmary at Leeds. Communicated by J. C. Lettſom, M. D. &c. p. 410

ARTICLE XXXVII.

Some Remarks on the Influenza that appeared in Spring, 1782. In a Letter to Dr. Lettſom, by R. Hamilton, M. D. of the Royal College of Phyſicians, London; Member of the Medical and Philoſophical Societies of Edinburgh, and of the Medical Society of London. p. 422

ARTICLE

MEMOIRS
OF THE
MEDICAL SOCIETY
OF
LONDON.

ARTICLE I.

Of the HYDROPHOBIA, *from a Greek Manuscript, in the Possession of* JAMES SIMS, M. D. PRESIDENT *of the* MEDICAL SOCIETY *of* LONDON; *with a Translation by the same.*

Read January 21, 1788.

HAVING been ſo fortunate as to procure a large number of ancient Greek manuſcripts on medicine, many of which are hitherto unpubliſhed, I once entertained a deſign of laying before the Society an accurate account of the whole. Their number and variety has, however, deterred me from the undertaking at preſent; therefore I have ſelected a few pages of one of them, principally becauſe it contains ſeveral hints which may not be unworthy of adopting. I have long thought our mode of

treating the *Hydrophobia* wrong; beyond a doubt, it is completely unſucceſsful.

The Ormſkirk medicine, cinnabar, and muſk, have always proved totally inefficacious; opium in the largeſt quantities has ever failed; nor can more be ſaid for bleeding, or the uſe of mercury.

We pretend to follow the directions of Celſus in relation to the cold bath, yet entirely neglect the mode in which he uſed it, and alſo what he directs immediately to ſucceed it; that is, plunging the perſon into a bath of oil, to prevent, as he ſays, their being killed by the ſpaſms. It is to be remarked, that in this country it is the ſpaſms that ever kill the patient. The expence of a bath of oil has, I ſuppoſe, made his directions only to be followed in part; Cælius likewiſe adviſes frictions with oil. I have long reſolved, that ſhould I meet with a caſe of *Hydrophobia*, I would have the patient rubbed all over repeatedly with oil, and likewiſe make him drink it very copiouſly. There are many other things worth notice in the manuſcript, which is not leſs valuable, becauſe written with Hippocratic conciſeneſs.

Περὶ Ὑδροφόβου.

Ὑδροφοβίας αἰτία.

Οἱ μὲν ἀρχαῖοι τοῦ πάθους οὐκ ἐμνήσθησαν· ἔοικε δὲ γίνεσθαι διὰ διττὴν αἰτίαν· ἢ γὰρ ὑπὸ λυσσῶντος κυνὸς ἐνδακόντος καὶ εἰσάξαντος τοὺς ἐν τῷ σώματι χυμούς· ἢ χυμῶν τοιούτων ἐντραφέντων τῷ σώματι, οἷον δύνασθαι ἐπαγαγεῖν τὸ πάθος· ὑπὸ τούτων δὲ ἀναξηραινομένου τοῦ τε ὅλου σώματος σὺν τῷ πνεύματι, καὶ τοῦ στομάχου, εἰκός ἐστι καὶ τὸν σπασμὸν ἔσεσθαι. Καὶ πρὸς τὸν τοῦ ὕδατος ψόφον ἀπεχθῶς ἔχειν, διὰ τὸ κατάξηρον τῶν ὀρεκτικῶν ὀργάνων. ταῦτα γὰρ διὰ τὴν πολλὴν ξηρότητα δυσκινεῖται, ἢν δὲ κινεῖται ἀλγεῖ. δὶ αὐτὸ γὰρ εἰς κατάποσιν ὑγρῶν μάλιστα ἀλλοτριοῦνται, ὥσπερ οἱ κοπώδεις διὰ τὴν ξηρότητα τὴν ἀπὸ τῶν κόπων γινομένην, δυσκίνητοί εἰσι. παρ' ἕκαστα γὰρ ἡ οἰκεία τοῦ αἵματος ὑγρότης, εὐκινησίας ἐστὶν αἰτία.

Ὑδροφόβου σημεῖα.

Οἱ δὲ ὑδροφοβικοὶ δεδοίκασι πᾶν ὑγρόν· ὥστε καὶ μνησθέντες ἐξίστανται μετὰ κραυγῆς, τρόμου, φόβου, ἱδρώτων ψυχρῶν, ὀδόντων πατάγου. Προκόπτοντες δὲ ἐπὶ τὸ χεῖρον, πάντα ταῦτα πάσχουσι, καὶ χωρὶς ὑγροῦ φαντασίας· ἀλλοτριοῦνται τοῖς ψιθυρίζουσι, καὶ ψόφους ὑδάτων δεδοίκασι. Βαρύνονται διὰ κραυγὰς αἰφνιδίους.

Ὁ μένἰοι τρόμος αὐτοῖς ἐκ ἔςι διηνεκὴς, ἀλλὰ κατὰ τὰς Φαντασίας ἐπιτιθέμενος. Περεψύχονταί γε μετ᾽ ἀέρος- Καὶ σφυγμὸν πυκνἔνται· συνδιακαίονται μετ᾽ ἀσθενείας. Καὶ εἴ τις προσφέρει πότον, ἐκτρέπονται, καὶ κεκράγασι. Καὶ τὸ πνεῦμα κλαυθμῶδες ἔχεσιν· ὅμοιον παισὶν ἀκολύμβοις μέλλεσιν εἰς βύθος ἅπτεσθαι· λυγμὸς ἐπὶ τὸ χεῖρον προϊἕσι παρέπεἰαι· ἡ Φωνὴ ἄτονος, καὶ ὑλακή· παραπλησίων ἀδίκημα· ἔνιοι δὲ τῇ σφοδρότηἰι τῆς ταραχῆς ἐν τῷ βιάζεσθαι ἐπισπασθένἰες ἀπέθανον.

Ὑδροφόβε θεραπεία.

Τὲς δὲ ὑδροφοβικὲς κατακλιτέον ἐν τοποῖς εὐαέροις καὶ εὐκράτοις· τὴν τἕ ποτἕ λύσιν αὐτοῖς ἐκ παντὸς ἐπιμηχανηἰέον, καὶ μάλιςα κατὰ τὲς παροξυσμές· Ἔςω δὲ μελίκρατον· εἰ δὲ ἀδυνατοῖεν ἂν τἕτο, ἑψητέον μέλι, ἕως ἂν κηρῶδες τὴν σύςασιν γένηται· ἔπειτα ὥσπερ ἄγγη κενὰ ἐμποιἕντες, καὶ ταῦτα ὕδατος ἐμπιμπλῶντες καὶ ἐπιπωματίζοντες διδότωσαν καταπίνειν. ὅτως γὰρ ἅμα τήν τε δίψαν καὶ τὸ κατάξηρον τῶν σωμάτων παρηγοροῖντο ὡς ἀπὸ μελικράτε, καὶ ἐκ ἂν παροξυνθεῖεν πρὸς τὴν τὲ ὑγρἕ δόσιν· Καταπλαςέον δὲ αὐτοῖς τον ςόμαχον καὶ θώρακα τοῖς ἐμψύχεσι πάντη, τοις Φοίνιξι μετὰ μήλων κυδωνίων, ἢ πέπονι, ἢ κολοκυνθίας ξύσματι, ἢ ἀμπέλῳ ἢ ἴξῳ, ἢ ἀνδράχνῃ, ἢ κοριάνῳ, ἢ

ςρύχνῳ,

στρύχνῳ, ἢ ἀειζώῳ. Ἑκάστῳ ἄρτε ἢ πάσης ἀλφίτων συνεμβαινομένῳ· συνεχέστερον δὲ ὑπαλλαττέσθω. Ἔστω δὲ χρόνος ἢ μὲν αὐτάρκης, ἢ τε νοσεντος εὐφορίαν. Ἐν δὲ τοῖς σπασμοῖς παρέστω καὶ ἡ διὰ τῶν χειρῶν πιθήνιος κράτησις, καὶ συγκρίσματα δὲ το δάφνινον, ἢ ἴρινον, ἢ ἀμαρακίνον, ἢ γλεύκινον σὺν καστορίῳ· καὶ τὰ ἄλλα τὰ τέτοις ὅμοια. Καὶὰ δὲ τὰς ἀνέσεις τροφαὶ ἔστωσαν ῥοφηματώδεις καὶ ὑδραντικαί· εἴη δ᾽ ἂν ἐν ταύταις ὁ διὰ πτισάνης χυλὸς σὺν μέλιτι· αὐτάρκη δὲ ἔστω τα διδομενα. Προποτιζέσθω δὲ μελικράτῳ· ἀρίστη καὶ ἡ θηριακὴ, καί αἱ διὰ δύο πεπέρεων ἀντίδοτοι διδόμεναι κατὰ τὰς ἀνέσεις· κατὰ δὲ τὰς παρακμὰς χρήσασθ᾽ αὐταῖς, καὶ ἐλαίῳ· ὁ τά μὲν ποτε φέρων, ὅτε δέ ἐν βαλάνε μοίρᾳ· προωθείσθω δὲ ὡς ἐσωτάτω· εἰ γὰρ διά τινα αἰτίαν τὴν ἄνω κάθαρσιν ἐκκλίνομεν, ἐπὶ τὴν κάτω χωρητόν. Εἴη δ᾽ ἂν ταύτης ἄριστος μὲν τε μέλιτος ἐνετῆρος ἢ δ᾽ ἒν κολοκυνθίδος· ἢ ἡ δια ταύτης ἰατρεία ἢ ἐπὶ τὸν θυμόν· ἀμύνοι δ᾽ ἂν ἐν τέτοις καὶ τὸ ἐναρετὸν ἀπὸ τῆς ἡμετέρας θεᾶς περίαπτον. Ἐν δὲ ταῖς ἀναλήψεσι προσφερέσθωσαν καὶ τὰ εὔπεπτα, καὶ ποτῶν, εἴη δ᾽ ἂν πᾶσα ἡ ὑδραντικὴ δίαιτα αὐταῖς ἀρίστη.

De Hydrophobia.

Hydrophobiæ Cauſæ.

Veteres quidem morbum iſtum ſilentio præterierunt; originem vero ſumpſiſſe videtur ex duplici cauſa, vel a rabidi canis morſu, quo ſpuma corpori immittitur, vel ab humoribus ejuſmodi in corpore ingeneratis unde exoriri poſſit morbus. His de cauſis toto corpore cum ſpiritu et gutture exareſcentibus, ſpaſmus neceſſe eſt ſubſequatur. Peroſi ſunt igitur aquæ ſtrepitum, propter ariditatem organorum appetentium, quæ nimia ſiccitate difficilius moventur, ſin autem moveantur, dolore afficiuntur. Idcirco a potu liquidorum maxime abhorrent: ſimili ratione homines laborioſi ab ariditate quæ a laboribus exoritur difficulter moventur; quia in omni caſu propria ſanguinis humiditas facilis motus cauſa eſt.

Hydrophobiæ Signa.

Qui Hydrophobia afficiuntur omne liquidum pertimeſcunt, ita ut ſi quis aquæ mentionem faciat, repentino impetu ſubſiliunt, cum clamore, trepidatione, metu, algido ſudore,

dore, ſtridore dentium. Ingraveſcente autem morbo, omnia hæc ſine ulla aquæ cogitatione patiuntur; tum ſi quis ore fiſtulæ ſonum imitetur hunc averſantur; et ſtrepitum aquæ pertimeſcunt; omneſque repentini ſtrepitus graves fiunt. Verum enimvero tremor ille non perpetuus eſt, at ſecundum vim animi imaginatricem ſupervenit. Sub dio refrigerantur. Pulſum autem habent crebrum, et a morbo penitus comburuntur. Et ſi quis potum affert, avertunt oculos clamitantes. Ipſe autem ſpiritus flebilis eſt, puerorum inſtar natandi imperitorum, cum ad profundum jamjam lapſuri ſunt. Inſequitur autem rabies cum in pejus prolabuntur, vox debilis et latratio; illos injuria afficiunt qui prope adſtant. Sunt autem qui morbi ſævientis violentia ſpaſmis cruciati perierunt.

Hydrophobiæ Curatio.

Hydrophobos reclinare facito in locis ubi puram et ſerenam habeant auram. Et potum adminiſtrare omni modo ſtudeto, præſertim in paroxyſmis. Iſte vero potus ex aqua melle miſta fiat. Quod ſi hoc fieri non poteſt, mel coquatur, donec ſpiſſitate ceri ſimile ſit, dein

(miniſtri) quaſi vacua doliola fingentes, et hæc aqua implentes obturanteſque, dent ægris ad bibendum; hoc enim modo, ſitimque et ariditatem corporum mitagabunt perinde ac mulſi opera. Neque hoc modo irritantur tanquam adminiſtratione aquæ. Cataplaſmate autem ſtomachum et thoracem obducito ex algidis, vel palmæ fructu cum malis cydoniis, vel pepone, vel ramentis coloquintidæ, vel vitibus, vel viſco, vel portulaca, vel coriandro, vel ſolano, vel ſedo: ſingulis horum cum pane, vel farinæ glutine commixtis. Sæpius autem mutetur cataplaſma, idoneo tempore, vel pro dolentis conditione. At in ſpaſmis miniſtri teneant manibus ægrotantem, et ungant lauro vel iride, vel amaraco, vel muſto cum caſtoreo, et ſimilibus. Requieſcente autem morbo veſcantur (Hydrophobi) ſorbitionibus et cibis aquoſis; quibus adjungatur ſorbitio e ptiſana colata, cum melle. Quicquid autem adminiſtratur idoneum ſit. Bibant autem mulſum. Theriaca quoque optima eſt. Et dentur antidoti ex duobus piperibus per remiſſiones. Cum vero languent ægroti, hiſce remediis utimini, una cum oleo; vel in potu, vel in balani forma; balanus autem intro-

mittatur

mittatur quantum poteſt intimo, nam ſi propter quamcunque cauſam vomitum ciere nolumus, ad catharſim eundum eſt. Ubi optimum eſt enema melleum vel e coloquintida. Ex his curatio petenda eſt vel menti adhibenda medicina. Auxilium tunc ægrotis affert virtute præditus ex noſtra dea monile. Cum vero convaleſcere incipiat æger, afferantur cibi et potus, digeſtu faciles, et ſtomachicæ, et lenitivæ. Semperque eſcæ quæ ſorbitionis ſpeciem habent optimæ ſunt.

ARTICLE II.

Obſervations on the Scirrho-contracted Rectum: By JOHN SHERWEN, *of* ENFIELD, *Surgeon, and* C. M. S. *Communicated by* J. C. LETTSOM, M. D. *&c.*

Read July 16, 1787.

THE diſeaſe of which I am about to treat, is not peculiar to any ſex; but is, I believe, pretty generally confined to patients in an advanced period of life. It comes

comes on in the moſt gradual and imperceptible manner. Slow in its progreſs, but terrible in its conſequences, it yields not to medical aſſiſtance; but muſt, under the beſt management, become ultimately fatal. It admits however of palliation; and if early diſcovered, will alſo admit of the laſt moments of the patient being reſcued from unavailing, miſtaken, and diſtreſſing attempts to cure. It is therefore an object worthy of the moſt ſerious attention of every humane practitioner. For though we cannot cure, it is our duty to ſmooth the bed of death, and under the moſt unhappy circumſtances of diſeaſe, to prolong life as far as lies in our power.

There is no diſeaſe to which the human frame is incident that is more liable to be miſunderſtood. *Diarrhæa*, *dyſentery*, *teneſmus*, cholic, painful diſtenſion of the abdomen, inflammation in the bowels, and iliac paſſion, which are each of them formidable, and often fatal diſeaſes in themſelves, may be ſucceſſive ſymptoms only of the *ſcirrhous rectum*. Under ſome one of theſe appearances, it is highly preſumeable

presumeable that many patients have died without the real cause having ever been assigned or suspected; and even when it is suspected, and becomes an object of manual investigation, it may easily be mistaken for an enlargement of the prostate gland, or a *scirrhous uterus.*

The patient gradually experiences a difficulty in evacuating *fæces* of a thin consistence. There is a principle of accommodation in the human system which enables him to go on for a great length of time without applying for aid. As the passage becomes obstructed, the *fæces* acquire a thinner consistence; and the first complaint which he makes is of a looseness. He tries small doses of *rhubarb*, which perhaps, exciting a considerable discharge, procure relief; but the cause remaining, the symptoms again return. He now tries *columbo root*, *simarouba*, small doses of *ipecacuana*, and a variety of medicines recommended for *diarrhœa* or *dysentery*. These have little effect; and he continues in other respects apparently in good health. His appetite is but little impaired, reiterated scanty evacuations, amounting in the whole to a sufficient

ficient quantity to keep the ſtomach eaſy, preſerve a ſort of balance in the inteſtinal canal; but by degrees the cavity of the gut becomes leſs permeable, opiates and teſtaceous powders have perhaps been had recourſe to, and the frequent needing to ſtool abates. The patient and his friends flatter themſelves that he is getting well. But he now gradually falls off in his appetite for food. The abſence of ſtools is for ſome time attributed to this cauſe, till the lower part of the abdomen by degrees acquires a remarkable prominency, attended with uncommon rumbling of wind in the belly, like the gurgling of water in a bottle. Theſe two laſt circumſtances perhaps afford *pathognomonic* ſymptoms of this diſeaſe; more eſpecially when accompanied with frequent but ſcanty diſcharges of thin, dark coloured, ſlimy *fæces*; often not more than a tea-ſpoonful, ſeldom exceeding at one diſcharge a larger quantity than a table-ſpoonful. But to return. The patient makes ſeveral ineffectual attempts to go to ſtool; and if he is a man of natural good ſenſe and penetration, begins to ſuſpect that there is ſome mechanical obſtruction to the

the completion of his wiſhes. His phyſician, if he has not ſooner taken up this idea, now enters heartily into it, and will naturally ſuſpect an accumulation of hardened *fæces*, which often produce for a long time the ſame ſymptoms as a real *ſcirrhus* of the part. In fact, the obſtruction in both caſes is mechanical; and hardened *fæces* in the rectum, too bulky to be evacuated, almoſt always produce a looſeneſs. Scanty evacuations of thin *fæces*, formed from the retention of the general contents of the bowels, every now and then eſcaping paſt the hardened ball, keep up at leaſt the appearance of a looſeneſs. Under this idea he will have recourſe to calomel or caſtor oil; and will perhaps ſucceed. If the obſtruction is from hardened *fæces*, the finger generally is neceſſary; but when it proceeds from a *ſcirrhous* gut, the cathartic may poſſibly produce a plentiful diſcharge of thin *fæces*. The ſymptoms will for a time ſubſide; but by degrees they will again return. There will again be a conſtant needing, with ſlimy ſcanty evacuations; and the diſorder will now be pronounced a *teneſmus*. If an attempt is made to throw up

warm

warm water or milk to waſh the part and leſſen irritation, the operator will experience the ſame difficulty in getting the liquid up, which the unhappy patient hath found in expelling the contents of the bowels. If a female aſſiſtant performs this office, ſhe will tell an inattentive practitioner that it goes up very well; but the whole will be waſted and received in the cloths, and the patient doubly cheated, firſt, of expected relief, and ſecondly, diſappointed in his phyſician's acquiring that information ſo eſſential to his future comfort. If a ſurgeon performs this office, he will find, upon forcing the liquid into the gut, that a few ounces will apparently paſs well; but ſoon a forcing downwards on the part of the patient takes place, and the whole will return into the bladder in his hand. He may repeat his efforts ten times, and the regurgitation will as often follow; and perhaps not a table-ſpoonful of the enema will be loſt. At laſt he may poſſibly ſucceed; the enema may be forced beyond the obſtructed part; but it will there be retained an unuſual length of time, and will come away at laſt by little and little. In the

courſe

course of this task he will doubtless introduce his finger, and will flatter himself at first that he feels a lump of hardened *fæces*; but upon the patient's bearing down forcibly, he will distinctly feel the coats of the intestine betwixt his finger and the lump, which, if it happens to be situated on the side of the gut in contiguity with the bladder, he may conceive to be an enlarged prostate; but a free discharge of urine will discountenance such idea. If the hardness and tumefaction is attached to the *cervix uteri*, or the back part of the *vagina*, it may easily be mistaken for a *scirrhous uterus*.

By degrees a total suppression of stools takes place, the tumour in the abdomen encreases, the uncommon rumbling of wind becomes more audible, so as to engage the attention of the friends and visitants of the patient. The distention gradually encreases, till the stomach is oppressed and a vomiting comes on. The vomiting is not very frequent at first; but by degrees every thing swallowed is vomited up. Severe pains are felt from distension in various parts of the abdomen,

abdomen, and a true iliac paſſion of the chronic kind comes on, and continues as long as the patient lives, unleſs he is accidentally relieved by a free diſcharge of thin *fæces*, which will ſometimes unſuſpectedly give a reſpite to his ſufferings; in conſequence of which the appetite for food will again return; the patient will again appear to be getting well; but the anxious ſolicitude of his friends at this period, will urge him to get down conſiderable quantities of generous nouriſhment, till at laſt a repetition of the ſame ſcene takes place, and the unhappy man is alternately tantalized and worn out either by a ſtoppage or a purging.

If aſſiſtance is not called in till the patient arrives at this deplorable ſtate of the diſeaſe, the want of ſtools, the great pain, vomiting, and tenſeneſs of the abdomen, may be pronounced an inflammation of the bowels, or an iliac paſſion of the acute kind. If powerful means are employed under ſuch idea, it is eaſy to conceive that the laſt moments of the patient muſt be rendered doubly diſtreſſing.

The conſtant needing to ſtool which attends this diſorder, may be diſtinguiſhed from a common *teneſmus* by attending to the following circumſtances. A common *teneſmus* is generally ſudden in its attack, or it follows ſevere purgings or dyſenteries, where the preceding circumſtances have been well defined. It is often the conſequence of *draſtic cathartics*, and is always attended with conſiderable pain, and moſt frequently with a *mucus* diſcharge tinged with blood, inſtead of *fæces*; whereas that which accompanies the *ſcirrhous rectum* is attended with little or no pain, but with powerful ineffectual ſtrainings; during which there will often be a diſcharge of wind, and the *mucus* ſqueezed out is ſlimy, but always more or leſs black and excrementitious, very ſeldom tinged with blood. In the common *teneſmus*, the *impetus* ſeems entirely ſpent on the *ſphincter ani*, and there is more or leſs of a protruſion of the gut: but in the ſtraining from a *ſcirrhous rectum*, the patient is not ſenſible of that extreme diſtreſs at the fundament which is experienced in the other, and as ſoon as a ſmall portion of excrementitious *mucus* is voided, he is able to riſe immediately

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from the ſtool; but in a common *teneſmus* he is under a neceſſity of ſtraining long, even after the expulſion of all that he knows from his feelings will at that effort be evacuated, and after he is able to riſe from the ſtool there ſtill continues a burning pungent ſenſation, urging to a continued expulſion. Whereas in the *teneſmus* of which I am treating, after the patient has ſtrained hard, whenever a ſmall quantity of thin *fæces* arrives at the anus, it is ſquirted out with ſlight efforts, and little or no uneaſineſs follows; nor does the countenance ſhew that extreme diſtreſs attendant on the *ſpaſmodic ſtricture* of a common *teneſmus*.

When the preceding ſymptoms have not been known, it will be leſs eaſy to diſtinguiſh this malady from the true *volvulus*, or acute illiac paſſion. It is preſumed, however, that they may be thus diſcriminated: this obſtruction being ſituated within a few inches of the extremity of the inteſtinal canal, does not produce ſuch enormous pain, ſuch exquiſite anxiety, as when it is ſeated higher up, or in the ſmall inteſtines; nor do the powers of life ſo ſoon give way. The patient ſwallows

food,

food, he retains it ſome time, and is apparently nouriſhed by it, for his pulſe keeps up in a ſurpriſing manner, and the phyſician may pronounce, day after day, that his patient is far from being arrived near the termination of his ſufferings; for which however he ardently longs. But in the true illiac paſſion from inflammation, *intus-ſuſception*, or incarceration in the ſmall inteſtines, the powers of life almoſt immediately ſink, the countenance is deſcriptive of miſery, the pains are intolerable, the patient toſſes and writhes his body to and fro, and whatever is ſwallowed, is inſtantaneouſly returned; in a ſhort time a ceſſation of pain takes place, and the ſkilful obſerver can almoſt to a certainty predict the hour of diſſolution, at the time that the friends and the patient are even beginning to flatter themſelves with hopes of his recovery.

As ſoon as we are able to aſcertain the true nature of this diſorder, it will be neceſſary to make the patient ſenſible of it, and thoroughly underſtand it, that his ideas may go along with ours, and co-operate in the future plan for his comfort. Nor will this be very eaſily

accompliſhed; it muſt appear paradoxical to the patient, who has long known himſelf to be afflicted with a looſeneſs, to be told that it is neceſſary, during the remainder of his life, to confine himſelf to that regimen, which common experience points out as moſt likely to procure an open belly. And even admitting that we have gained over the underſtanding of the patient, we ſhall be liable ſtill to interruption, from the intruſion of well-meaning friends and neighbours, with whom a perpetual war muſt be waged.

Food which contains the greateſt quantity of nouriſhment in the ſmalleſt compaſs, ſhould be uſed, cautiouſly avoiding every article of this kind which is of a conſtipating quality. It ſhould be taken frequently, but ſparingly. All ſolid food, and particularly bread, pudding, and farinaceous ſubſtances, which contribute to bulky motions, ſhould be totally laid aſide. Milk, which may be conſidered as chyle already made, would be excellent nouriſhment, but there are ſome reaſons to ſuſpect that it is often productive of hardened *fæces:* its uſe therefore muſt be determined by the former habits of the patient when in health. Jellies

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and rich broths will afford confiderable nourifhment, and will depofite little that is not capable of paffing off by the kidneys. It is impoffible, *a priori*, to fay how long the human fyftem may be comfortably fupported under fuch diet, with very fcanty evacuations by the anus. It is certain that men have lived, in good health and fpirits, a fortnight without voiding any ftool whatever, notwithftanding they have eaten and drank during the whole time with good appetite. If this plan fhould be adopted whilft the rectum is in part pervious, the very fcanty evacuations will bear a much larger proportion to the ingefta, than when food of various kinds is indifcriminately and plentifully fwallowed.

I have already mentioned a certain accommodating difpofition in the animal œconomy, by which it becomes reconciled to new fituations. It is worth while to pay more attention to this circumftance here, becaufe upon this accommodating difpofition I build my hope of rendering the laft moments of the patient fupportable. As the gut contracts, the contents of the bowels are impeded in their pro-

greſs, they undergo a degree of fermentation, the *fæces* become thinner, a large quantity of air is generated, the bowels are thereby gradually diſtended, and the patient goes on with little inconvenience for a conſiderable length of time. At laſt there is a total ſuppreſſion of ſtools, and ſoon after, the ſtomach begins to regurgitate. That progreſſive motion of the bowels, called *periſtaltic*, ceaſes to operate downwards; by degrees it takes a contrary turn, and acts as regularly upwards. And even now under theſe unhappy circumſtances, if the patient is left to nature, he will feed, he will be nouriſhed; the diſcharges of urine and perſpiration will go on, and the ſtomach will reject what it is not capable of digeſting. How long life may be thus ſuſtained when medicine is diſuſed is unknown. It muſt be acknowledged, that life under ſuch circumſtances cannot be deſirable; ſtill, however, it is the duty of the phyſician to prolong that life to the utmoſt of his power, and to uſe his beſt endeavours to lighten the affliction of the unhappy patient, and thereby to enable him the better to ſubmit to the diſpenſations of Providence.

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In this laſt ſtage of the diſeaſe, every cathartic becomes a diſtreſſing emetic, and ſhould doubtleſs be no longer uſed. Indeed, admitting that the *periſtaltic* motion of the bowels was not inverted, yet when the ſtoppage is complete, there will be the ſame objection to cathartics, which forcibly ſtrike us in regard to the uſe of diuretics in a ſuppreſſion of urine. Diuretics in ſuch caſes counteract the accommodating diſpoſition of the animal œconomy; they ſtimulate the kidnies to a larger ſecretion of urine, and the bladder of courſe every moment becomes more and more diſtended: whereas, if diuretics and diluents were totally diſuſed, abſorption would conſiderably relieve the patient, and, perhaps, enable him to ſupport life till more effectual relief might be obtained from mechanical means. Catheters and bougies for a ſuppreſſion of urine are in the hands of every practitioner, and theſe may doubtleſs be contrived (particularly the elaſtic ones) to give relief in a ſuppreſſion of thin ſtools. Strongly impreſſed with the importance of this idea, I beg leave to lay the following caſe before the Medical Society, together with the diſeaſed part, which I have

ſent for their inſpection; as, I truſt, they will clearly ſhew, not only the practicability, but the abſolute neceſſity, for ſome attempt of this kind.

Caſe of a ſcirrhous Rectum.

ELIZABETH SHAKESHAFT, aged 52, a woman of a thin and ſallow countenance, applied to me about the latter end of the year 1786, for a pain in her bowels, which, upon aſking her ſome queſtions, and from obſerving ſome little unuſual prominence of the abdomen, I apprehended aroſe from a want of ſtools, notwithſtanding ſhe had ſome degree of looſeneſs upon her. She was conſiderably relieved by a doſe of *caſtor oil.* In two or three weeks ſhe was obliged to apply to me again, and was again relieved in the ſame manner. The ſame ſymptoms conſtantly recurring about the ſame diſtance of time, induced me to pay more particular attention to her complaints. I now preſcribed *calomel*, which acted very briſkly, and, with the help of an *anodyne* draught, gave her conſiderable relief. The diſcharge was dark-coloured, but free from lumps. As uſual,

ufual, however, about the fame diftance of time, fhe was again obliged to apply for affiftance, and begged to have another dofe of the little fpitfire powder, as fhe called the calomel. I now began to pay a ftrict attention to the difcharge of *fæces* when fhe was not under the operation of cathartics, and found them fuch as I have already defcribed in my general remarks on this difeafe, which will render a minute defcription of the cafe lefs neceffary here. I was now convinced that the complaint proceeded from fome mechanical obftruction; though this could not be accurately afcertained by examination with the finger, the point of which, upon her bearing down ftrongly, juft reached a fubftance unufually folid: upon introducing a finger into the *vagina*, the *os tincæ* was diftinctly felt apparently in its natural ftate, but clofely attached to it; and a very little nearer, the fame folid fubftance was felt which oppofed itfelf to the finger in the *rectum*. I fatisfied myfelf that it was not hardened *fæces*, but fufpected it to be an irregular enlargement of the *uterus*.

Being

Being now convinced that the caſe would go on from bad to worſe, I earneſtly ſolicited her to procure advice in London; but to my great concern, having implicit confidence in myſelf, ſhe long objected: till at laſt a humane lady in her neighbourhood aſking my opinion of the complaint, I pronounced it an incurable one: aſſuring her, that either from a *ſcirrhous* womb or ſome ſolid ſubſtance obſtructing the gut, there was not a ſufficient paſſage for natural figured ſtools, and that I knew of no means even for temporary relief beſides purging medicines and thin diet. Upon this alarming prognoſtic it was determined to remove her to London, from whence at firſt we received very flattering accounts, *viz.* that ſhe had had ſtools, that her appetite was returned, and that ſhe was recovering faſt. Ten days, however, were hardly elapſed, before a very different account was brought down: we were now informed that the diſorder had taken a new turn, that it had got up into her ſtomach, and that ſhe was worſe than ſhe had ever been before. Anxious to put herſelf again under my care, ſhe returned to Enfield in the beginning of

April

April. I was not ſurpriſed to find her with frequent hiccups, violent pains, an enlarged abdomen, and a total ſuppreſſion of ſtools. Her ſtomach immediately rejected caſtor oil, and her favourite medicine calomel ceaſed to take effect. I muſt here candidly confeſs, that had this been my firſt introduction to the caſe, I ſhould not have ſuſpected the true cauſe of the ſymptoms. Some ineffectual attempts having been made to give relief by means of tobacco clyſters and tallow candles, ſhe was reſigned to her fate: and it will be ſufficient to add, that ſhe lingered twenty-four days without paſſing a ſingle tea-ſpoonful of *fæces*. Towards the concluſion of the ſcene, I was happy in having an opportunity of carrying Dr. Lettſom to be a witneſs of it. The Doctor, ever ready to give his aſſiſtance to the poor, judiciouſly, but in vain, examined the navel and the groins, leſt any ſmall unobſerved *hernia* might have given riſe to the ſymptoms. On the 10th of May ſhe expired.

The body was opened the next day in the preſence of Mr. Connop, an ingenious ſur-

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geon, and the appearances upon diſſection were as follow:

The ſtomach and the whole inteſtinal canal were turgid with *flatus*. There were evident marks of inflammation on the external coats of the *colon*, and in ſeveral parts of the ſmall inteſtines. There was a conſiderable quantity of thin, yeſty, frothy, dark-coloured *fæces* in the *colon*. We found the ſeat of the diſeaſe where the *colon* ends and the *rectum* begins; the gut was thickened and conſiderably enlarged, but its cavity at the ſame time ſo much obliterated, that when Mr. Connop poured water into the ſuperior part of the gut through a funnel, it was with ſome difficulty that it filtered through the thickened inteſtine. When the parts were diſſected out, it meaſured exactly five inches and a half from the *anus* to the beginning of the tumor, which extended five inches and a half further up, and appeared to be about ten ounces in weight. Upon ſlitting the inteſtine to the thickened and contracted part, it had the appearance each way of an *os tincæ*, but was not in the nature of a common

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mon *intus-ſuſceptio.* The *uterus* was remarkably ſmall, and attached to the thickened gut which extended a very little below the *os tincæ.* I tried in vain to paſs a ſmall bougie through the contracted part of the inteſtine, but it yielded to, and was dilatable by, the finger. In the living ſubject this might probably have been effected by paſſing a common probang up the *rectum:* or we might have ſucceeded by the uſe of bougies of different ſizes, made of horn, ſmoothly poliſhed, which I would certainly try in future in any ſimilar caſe. This ſubſtance, by long boiling in water, becomes ſoft and pliable, and will retain its ſoftneſs ſome time after it is removed from the boiling water. It will adapt itſelf to the natural curvature of the *pelvis*, and ſhould be carried on to the obſtructed part ſlowly, gently, and ſteadily, with the utmoſt tenderneſs and circumſpection, but at the ſame time with ſufficient force and reſolution. There are caſes of ſuppreſſion of urine in which bougies of horn, ſoftened by means of boiling water, would probably adapt themſelves to the part, and give much relief. The great dan-

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ger will be in the point of the bougie acting upon a fold of the inteſtine, cloſe to the entrance into the obſtruction. If it once paſſes through the obſtructed part, there will be a plentiful diſcharge of thin *fæces*, and the diſorder will be again brought back to a *diarrhæa*, in which ſtate every poſſible means conſiſtent with ſupporting the ſtrength of the patient ſhould be uſed to continue it. There are many inſtances of daily purgings being ſupported many years by old perſons; and, perhaps, there is reaſon to ſuppoſe, that ſuch purgings often ariſe from a ſimilar contraction in the *rectum*.

I will here candidly confeſs, that I have myſelf attempted to cure ſuch a purging from a *ſcirrhous rectum*; which attempt produced a dangerous ſtoppage. The purging was again brought back by caſtor oil, and the patient relieved. It was again ſtopped, and the ſtoppage followed by tumefaction of the abdomen, rumbling of wind in the bowels as already deſcribed, and regurgitation from the ſtomach. I have ſeen this patient, after twenty hard ſtraining motions, void

void only as many drops of ſlime, tinged with *fæces*. The purging was a fourth time brought back by means of caſtor oil; but the ſtrength of the patient ſo much exhauſted, that he did not long ſurvive it. To be more particular in this would be "incedere ſuper ignes, ſuppoſitos cinere doloſo:" ſuffice it to ſay, that after the firſt ſtoppage, my prognoſtics were confirmed in every future ſtage of the complaint; and that knowledge acquired, which I have here endeavoured faithfully to communicate. And happy ſhall I be, if this imperfect ſketch of a diſeaſe, which I have reaſon to think is not generally known, ſhall, in any future inſtance, be the means of a timely diſcovery of its true nature and cauſe; on a knowledge of which, depend the right management and future comfort of the patient's life.

ARTICLE III.

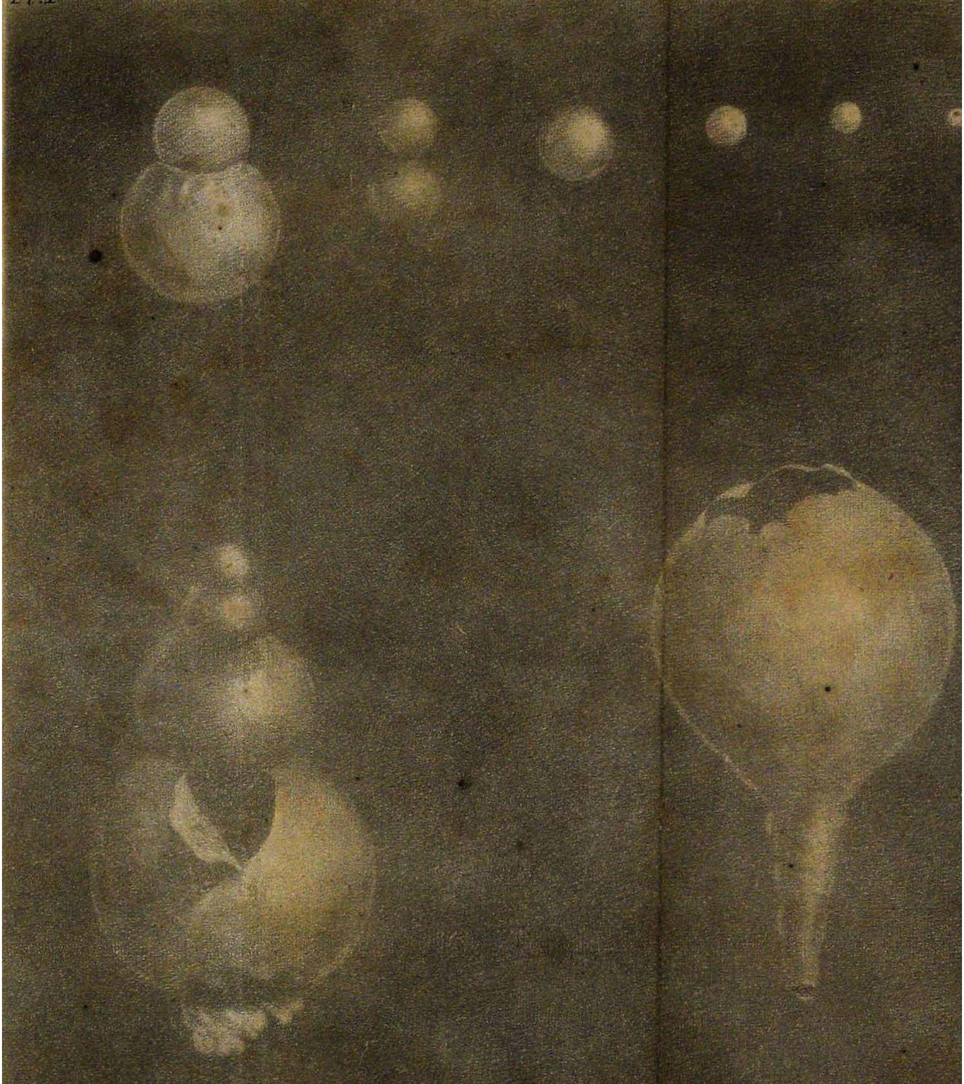
History of two Cafes of Hydatides Renales: By J. C. Lettsom, M. D. &c.

Read January 14, 1788.

Case I.

J. TAYLOR, Efq. a gentleman of 32 years of age, was thrown from his horfe, in the month of February, 1780, by which he received an injury on the lumber region, and from the copious difcharge of bloody urine which fucceeded, it was imagined that fome veffels were ruptured near the left kidney. After the firft fortnight he felt no pain, and performed all the functions of nature, as in a found ftate, though fomewhat reduced in ftrength by confinement and low diet. In the month of June following, he confulted me on account of a troublefome cough, attended with expectoration of blood, which he afcribed to the previous accident, as being the

Pl. 1



the only probable recollection; the cough was removed, after some months attention, and he again enjoyed a tolerable share of health. In the autumn of the same year he found himself so well recovered, that he was enabled to bear violent exercise on horseback, insomuch that the recollection of his accident was almost effaced; nor had he any painful symptom of his late disorder till about three years afterwards.

In the month of December 1783, he was suddenly seized with a shivering, and felt a violent return of the lumber pain, extending to the scite of the left kidney: in a few days he perceived a turgescence or enlargement in the *hypochondrium*, which continued gradually encreasing until the latter end of the month of February 1784, a space of nine weeks. After the first month the tumor was so little painful, that he was enabled to take a journey of 130 miles, to London, to consult me upon his case.

Upon examining the tumor, from obvious fluctuation on the touch, it evidently con-

tained a fluid: it extended from the vertebræ of the back along the left *hypochondrium* to the umbilical region, and occupied the whole ſpace from the ribs to the *os innominatum.* In magnitude it felt as large as an infant's head.

As the ſwelling augmented, the pain encreaſed, and the patient ſuffered conſiderably from the action of walking, or motion in general; but hitherto no rigors were obſerved, and the pain was ſo far mitigated by a mild anodyne, as to render it no wiſe intolerable; till at length ſome difficulty of making water came on, and for many hours a total obſtruction. In this ſituation, ſurgeons of the firſt eminence were conſulted, to determine how far it would be adviſeable to make an inciſion in the ſide, and perforate the cyſt, in order to take off the preſſure on the bladder, and obviate the fatal event which the retention of urine threatened: this was on the 20th of February; the reſult was, that, from the uncertainty of the ſituation of the tumor with reſpect to the inteſtines which were ſuſpected to take a

curve

curve over its anterior ſurface, as well as from the riſk of expoſing ſuch parts to the external air, the operation was protracted; and the uſual opiate of the patient was ordered to be encreaſed in the evening, which was the chief remedy, beſides the uſe of cicuta and anodyne clyſters.

He paſſed a painful night, ſuffering frequent and violent rigors; but early in the morning experienced the moſt happy relief, by a diſcharge of a large quantity of thick pus with the urine, which was followed the next day by that of pus and numerous hydatides.

In a few days the tumor ſubſided, and the purulent diſcharge ceaſed; after this he continued recruiting in ſtrength for nearly a fortnight, when his ſide enlarged again, after exerciſe in a coach, probably by a large hydatide ſtopping up the ureter. Rigors and ſtranguary ſucceeded as before, and the tumor became as large as in the firſt inſtance, till the latter end of March, when he experienced a ſecond diſcharge in every reſpect

 like

like the former, excepting the hydatides being much larger.

His health and ſtrength again returned, until his ſide filled a third time, after exerciſe on horſeback; and continued ſwelling until the 25th of April, when he was again relieved by a third diſcharge; and theſe hydatides were conſiderably larger than thoſe of the preceding attack.

The paſſages now became ſo open, that he frequently diſcharged the hydatides after walking or riding, without enlargement or pain of the ſide; or, if he felt uneaſy, or perceived a tendency to tumeſcence, by preſſing his hand upon the ſide he could ſqueeze them into the bladder, where they would remain ſome time before they were diſcharged; but the hydatides became at length ſo conſiderable in ſize, that it was with great difficulty they paſſed the urethra. The laſt that he voided was on the 12th day of July, which was ſo very large that it ſtopped up the urethra, and remained in it for a conſiderable time, until the weight of the accumulated urine forced it away.

The

The earlieſt hydatides burſt in their exit; and they gradually encreaſed in magnitude in every ſucceſſive diſcharge; the firſt that he paſſed not being bigger than the ſkin of a green pea, and the laſt about the ſize of a pullet's egg.

Since this laſt diſcharge, his health gradually recovered; he enjoyed without the leaſt inconvenience the chace, and every other ſpecies of exerciſe, as well as ever he did.

During the whole progreſs and termination of the diſeaſe, very little medicine was adminiſtered, except cicuta, gum arabic, clyſters, and anodynes. He once took an emetic, when the tumor became uneaſy, previous to the ſecond diſcharge, and which ſeemed to haſten the eruption of the hydatides. Bark was tried, but with manifeſt inconvenience between the eruptions, and was left off. After the laſt diſcharge it ſeemed beneficial, as well as aſſes milk.

Particular attention was paid to diet; which conſiſted of ſmooth emollient farinaceous drinks, or very thin animal broths.

From the hiſtory of the diſeaſe there remains very little doubt but that it originated in the kidney, where the ſuppuration was extended to an amazing degree, till at length the matter breaking through the cyſt in which it was contained, paſſed into the ureter, and was thereby conveyed into the bladder.

CASE II.

A CASE not very diſſimilar was introduced to me in November 1785, by the following letter from an eminent ſurgeon at Charing in Kent, where the patient alſo reſides:

"The bearer of this, Mr. SMITH, by
"trade a butcher, a ſober temperate man,
"has been for ſome years paſt affected with
"a complaint of a ſingular nature, which
"ſeems to ariſe from the right kidney: it
"comes on with a pain in the region of
"that kidney, which appears to deſcend in
"the courſe of the ureter of the ſame ſide,

"and ceaſes, after diſcharging by the ure-
"thra ſome membranous kind of bags, to
"all appearance hydatides, which have been
"of different ſizes: ſome of the ſmaller
"have been whole, but the larger, I ſup-
"poſe from preſſure, have been broken and
"empty. There have been conſiderable in-
"tervals between the paroxyſms, during
"which he has enjoyed perfect health;
"but within this laſt year the paroxyſms
"have been more frequent, attended with
"a greater diſcharge of hydatides."

The patient informed me that he firſt perceived the diſeaſe about ten years ago, when the hydatides were diſcharged of the ſize of a pea, with a ſenſation of weight or preſſure, rather than of pain; preceded ſometimes with ſlight rigors. He had ſuch returns about every four or five months at the earlier periods, but they have ſince encreaſed in frequency, and the hydatides in ſize.

Theſe diſcharges have occurred at leaſt five times during the laſt twelve months,

and are accompanied with encreafing pain; and the hydatides are now about an inch and a half in diameter; previous to thefe late attacks, he feels a fulnefs in the region of the right kidney, and difcharges at one period near a quarter of a pint of hydatides, befides purulent matter. About three years ago he broke his leg, which, however, foon recovered; but he thinks the difeafe has encreafed in frequency and violence fince this accident.

I prefcribed the following remedies;

℞ *Extracti Cicutæ.*
Pilul. Saponac. a ℈i. *f. Pilulæ* xxiv. *capiat duas omni nocte.*

℞ *Electar. Lenitiv.* ℥j.
Æthiop. Mineral. ʒß.
Syr. Simpl. q. s. fiat Electarium, de quo capt. magn. Nucis Mofch. mane, prout venter poftu-let.

℞ *Uvæ Urfi.* ℈ijß.
Coque ex Aq. font. ℥ix. *ad* ℥vi. *fub finem coctionis addendo Rad. Glycyrrh.* ʒß. *et cola.*

℞ *Liquor. Colati,* ℥iß.
Tinct. Stomach. ℈i *f. Hauft. bis per diem fumendus.*

Not

Not having received any account of the patient's health, or of the effects of the remedies, after a ſpace of twelve months, I wrote to the apothecary for further information, who favoured me with the following relation:

"I received yours of December laſt, and
" ſhould have anſwered it ſooner, but for
" the ſake of giving you a more ſatisfactory
" account of the perſon you enquire after.
" It was in November 1785 that he applied
" to you, and he continued to take the me-
" dicines as preſcribed by you near four
" months; but ſome time before he diſcon-
" tinued the uſe of them, he had ceaſed to
" bring away any hydatides, and except ſome
" little pain in the back, and this after much
" riding or fatigue, he continued perfectly
" well until about the latter end of Decem-
" ber laſt, when, after ſome conſiderable
" pain in the back, he voided again ſeveral
" more hydatides, of a larger ſize than for-
" merly, to the baſes of which, or that part
" which appeared to have been attached to
" the kidney, ſome ſabulous matter adhered.
"He

"He has difcharged feveral more at different
"times fince, but the laft have not had any
"fabulous matter joined to them; and he
"has now, I hope, voided the whole of this
"laft collection, having not difcharged any
"very lately; and except fome fmall pain
"in the back, he is perfectly well. He is
"now taking the fame medicines as before;
"only, inftead of the decoction of the *uvæ
"urfi*, he takes this vegetable in powder."

"I am, &c.

"W. HAWKER."

I am not defirous of enlarging the hiftories of medicines by the relation of folitary cafes, without the profpect of improving the fcience; and although thefe may not tend to afcertain the virtues of any remedy, or point out a certain fixed mode of treatment, they at leaft exhibit the fuccefsful termination of thefe difeafes in a manner hitherto unnoticed, and perhaps unknown; and fhould a fimilar inftance occur to any practitioner, it might afford fome fatisfaction to find its fymptoms recorded.

ARTICLE

ARTICLE IV.

Some Remarks on the Prevalence of the Atrophia Lactantium, communicated to Dr. Lettſom, by JOSHUA WALKER, M. D. C. M. S. *Phyſician to the General Infirmary at Leeds.*

Read July 16, 1787.

THE *Atrophia Lactantium*, *Tabes Nutricum*, or that emaciation ariſing from the ſuckling of children, is a diſeaſe with which phyſicians are well acquainted; but its more frequent occurrence of late, in this town and neighbourhood, renders it now, more than formerly, an object of ſerious conſideration, eſpecially to the inferior claſſes of females, to whom it is particularly incident.

If by pointing out the cauſe of this growing malady, and exciting the attention of practitioners towards it, and thereby giving ſome

ſome check to its future progreſs, the lives of ſome of theſe uſeful and laborious individuals can be preſerved to their families and the community, the writer of theſe remarks would feel that ſatisfaction which is always the reſult of having contributed, in the ſmalleſt degree, to the cauſe of humanity, and the relief of our fellow-creatures.

It has been painfully noticed, in ſeveral parts of this extenſive and commercial country, and particularly in this place, that ſince the more plentiful introduction of *Tea* into the families of the induſtrious poor, by the late reduction of its price, this diſeaſe has made an unuſually rapid progreſs. The difficulty with which animal food is procured by the lower ranks of ſociety, in quantity ſufficient for daily nutriment, has led many of them to ſubſtitute, in the place of more wholeſome proviſions, a cheap infuſion of this foreign vegetable, whoſe grateful flavour (and perhaps narcotic quality, which it poſſeſſes, in a ſmall degree, in common with moſt other *evergreens)* is found to create an appetite for itſelf, in preference to all other

kinds

kinds of aliment that the ſcanty income of poverty allows theſe deluded objects to procure; though I am ſorry to have occaſion to add, that the lowering effects of tea-drinking lead too many of theſe to ſeek for relief from ſpirits, and other pernicious cordials, at the expence of health, and the ſure conſequences of penury and want.

As this change in the article of diet has been very generally made, eſpecially by the females, and the younger branches of the families of the manufacturing poor, their conſtitutions have been rendered much leſs able to bear evacuations of any ſort, and particularly that of Lactation. I may with great truth aver, that more than two hundred patients of this denomination have, within the laſt two years, come under my notice. Upon their application for relief, and the conſequent enquiry which I have been led to make reſpecting the nature of their diet, their almoſt invariable reply has been, that they have chiefly depended upon tea for their ſupport, at the ſame time that they were permitting an apparently healthy

child

child to draw the whole of its nouriſhment from them.

That it is *debility*, and an *impoveriſhed ſtate* of the whole ſyſtem, ariſing from a deficiency in the due ſupply of proper and ſufficiently nutritious aliment, at a time when the conſtitution particularly requires it, in conſequence of the continual waſte which the mother ſuſtains from the ſuckling of her infant, which lay the foundation of this diſeaſe; and that the lungs are but ſecondarily, or ſymptomatically affected, is clearly evinced from an attention to the ſymptoms.

The patient firſt complains of languor and general weakneſs; loſs of appetite; fatigue after exerciſe, though it be of the gentleſt kind; weariſome pains in the back and limbs; ſoon after which, ſymptoms of general atrophy come on; the face, in particular, grows thin, and is marked by a certain delicacy of complexion; paleneſs about the noſe; but with a ſmall degree of ſettled redneſs in the cheeks. In a ſhort time, if the patient ſtill continues to give ſuck, ſhe is ſeized with tranſitory

tranſitory ſtitches in the ſides, under the *ſternum*, or in ſome other part of the *thorax*, accompanied with a ſhort dry cough and ſlight dyſpnæa upon any muſcular exertion; the pulſe alſo becomes frequent, but ſeldom ſo hard as the inflammatory ſtate of the genuine *phthiſis pulmonalis*. Morning ſweats next make their appearance; abſceſſes and ulcers are often formed in the lungs; *pus* mixed with *mucus* is expectorated; the general weakneſs increaſes; the emaciated patient is unable to ſupport an erect poſture; and at laſt dies literally exhauſted.

With reſpect to the method of treating this diſeaſe, my deſign is rather to point out the *cauſe* of its preſent unuſual prevalence, that ſuitable cautions may be timely given to the unſuſpecting ſufferers, than to offer to the public any new modes of practice. The late Dr. Fothergill, who was a correct obſerver both of nature and the effects of remedies on the human body, has made ſome excellent remarks on the uſe of the bark, &c *. very applicable to the diſeaſe in

* Medical Obſervations, Vol. V. p. 348.

queſtion;

queſtion; to which I am induced to add, for the ſake of the younger practitioner, a few obſervations which have been drawn from my own experience.

It has always appeared to be indiſpenſably neceſſary for the mother to wean her child immediately upon the appearance of ſymptoms of debility, as the firſt and moſt eſſential ſtep towards a cure.

Secondly. To change the patient's diet from tea, and the leſs nutritive vegetables, to milk, and its various preparations; gruels, broths, and a ſmall quantity of mild animal food, along with a proper proportion of bread and eſculent roots; particularly potatoes, turnips, and carrots. Shell-fiſh, jellies, chocolate, ſago, ſalep, and tapioca, would all be highly proper, did not poverty prevent the far greater number of theſe patients from procuring them in ſufficient quantity; but as frequent inſtances of kindneſs are daily offered by the hand of opulence to theſe objects of compaſſion and diſtreſs, it is more than probable that the recital

recital of ſuch articles of diet as are likely to afford relief, may have its uſe in directing ſome friendly neighbour to a proper choice of them.

The animal food which is allowed, ſhould always be taken for an early dinner, and by no means late in the afternoon or evening; and is ſo far from increaſing the febrile ſymptoms in the firſt ſtage of this diſeaſe, when a ſtate of debility chiefly prevails, that for the moſt part it proves a powerful reſtorative, and the patients are ſoon ſenſible of the happy change, and gain additional ſtrength; eſpecially when this courſe has been aſſiſted by gentle tonics, ſuch as the following mixture of myrrh and *ſal martis*, which, with ſome alteration, is the ſame that Dr. Griffith has recommended in his Eſſay on the Hectic Fever.

℞ *Gummi myrrhæ pul. drachmam unam,*
Tinct. Cortic. Peruvian, drachmas ſex, tere ſimul et adde ſenſim,
Aquæ fontanæ. Uncias ſex,
Salis Nitri purif. Scrupulos duos,

Salis Martis pulv. grana duodecim,
Syrupi Balſamici ſemunciam, f. miſtura, cujus capiat Ægra Cochl. duo, mane jejuna, hora undecima motutina, et quarta pomeridiana.

In ſome caſes, when there appears to be an exacerbation of fever in the afternoon, I have thought it more uſeful to confine the adminiſtration of this remedy to the forenoon, and to direct a few ſpoonfuls of the ſaline julep, or *decoctum nitroſum*, to be taken frequently in the afternoon, evening, and during the night, if neceſſary.

If, in the courſe of a week after the mixture has been regularly adminiſtered, the patient ſhould remain free from pain, or ſenſe of reſtriction in the thorax, difficulty in reſpiration, or any other ſymptoms indicating an inflammatory affection of the lungs, we may hope for a favourable termination of the diſeaſe, and be encouraged ſteadily to perſevere. Nor in this caſe ſhould bleeding be admitted of, even in the ſmalleſt quantity, as the patient's ſtrength, as well as general habit, have been ſufficiently reduced by the

preceding

preceding circumſtances of lactation and improper diet. Decoctions of the Peruvian bark, moderately acidulated with the vitriolic acid, will now be proper, and greatly conducive to the patient's recovery, eſpecially if theſe can be aſſiſted by a change of ſituation from the town, to the pure air of the country.

If, however, which is ſometimes the caſe when the diſorder has been neglected, and the patient has continued to diſcharge the office of a mother longer than her ability permitted, the ſymptoms ſhould indicate a more advanced ſtate of the diſeaſe, and fixed pains in ſome part of the thorax ſhould come on, with oppreſſed breathing, and a frequent hard pulſe, then a ſmall bleeding, to the amount of two or three ounces only, may be occaſionally of uſe; and inſtead of preſcribing the myrrh, bark, or vitriolic acid, it will be adviſeable to take off the inflammatory determination to the lungs, by ſtrictly enjoining a milk and vegetable diet; keeping the bowels gently open by the mildeſt and leaſt heating laxatives; moderating the ſymp-

tomatic fever by cooling ſalines; and palliating the cough by mucilaginous mixtures, rather than by oily linctuſes.

℞ *Mucilag. Gum. Arabic. ſpiſs.*
Syrup Simpl. — *a Uncias tres,*
—— *Limonum* — *Uncians unam*
Salis Nitri purif. — *Drachmam unam, f. Miſtura, cujus ſumatur Cochl. j. quater vel ſæpius in Die, irritante tuſſi.*

The inflammatory ſpaſm, or conſtriction of the thorax, ſhould at the ſame time be relieved by the application of bliſters to the part pained, renewing them as they heal, rather than keeping them open: a practice which is not by far ſo efficacious, yet harraſſes the patient much more than repeating the bliſter as ſoon as the part has healed.

When all, or moſt of the inflammatory ſymptoms are removed by the means juſt now mentioned, theſe patients then bear the uſe of the myrrh, watery infuſions of the bark, and the elixir of vitriol, with conſiderable advantage; as they are found by experience to be much ſafer, and more generally beneficial

beneficial in theſe ſymptomatic caſes, than in the genuine phthiſis ariſing from the inflammation and ſuppuration of tubercles in the lungs themſelves.

Should the diſeaſe be ſtill farther advanced, and accompanied with morning ſweats, purulent ſpitting, proſtration of ſtrength, and the utmoſt degree of debility, the latter of which always accompanies this diſeaſe in a more remarkable degree than the true phthiſis, both reaſon and practical obſervation point out the expediency of ſupporting the patient's ſtrength, by the reſtorative means before directed ; and allowing, as in the firſt ſtage, a ſmall portion of animal food, at leaſt once a day, without which our kindeſt endeavours would be fruſtrated, and inſtead of affording relief, would ſerve to accelerate the fatal period.

ARTICLE V.

Experiments on the Solvent Powers of Camphor; and other Miſcellaneous Communications, in a Letter from DOCTOR PERCIVAL *to* DOCTOR LETTSOM.

Mancheſter, Aug. 1, 1787.

Read September 24, 1787.

DEAR SIR,

IF you deem the following facts and obſervations of ſufficient importance to be offered to the Medical Society, I truſt they will be received as a ſmall tribute of my reſpect for an inſtitution, into the fellowſhip of which I have had the honor of being elected. I do not apologize for the brief and miſcellaneous form in which they are delivered, not only becauſe I have no leiſure at this time for ſyſtematic compoſition, but becauſe I am perſuaded this mode of communication is favourable to the advancement

ment of ſcience. It has been adopted by the members of ſeveral foreign academies, and is ſanctioned by the authority of Lord Bacon, and the example of Mr. Boyle. No object or event ſtands ſingle and detached in the great frame of nature. Each has its relations and dependencies, ſimilitudes, contrarieties, and uſes, which a well-informed mind can at once recognize, arrange, and purſue: and which increaſing knowledge may multiply to an extent beyond our preſent powers of comprehenſion.

I. I do not recollect that the SOLVENT POWER OF CAMPHOR, on reſinous ſubſtances, has been particularly noticed by medical writers. It ſeems to be evinced by the following experiments, which I communicate to you, becauſe the reſult of them may be applied to various pharmaceutical uſes.

Ten grains of myrrh were rubbed in a mortar with two grains of camphor, to which about an ounce of pure water was added by degrees. The mixture was ſmooth, and the

 ſediment

ſediment depoſited: after ſtanding two days was not conſiderable, and was readily diffuſible again by agitation.

Two grains of camphor were rubbed into a powder in the mortar; to which an ounce of pure water was gradually added, as in the former experiment. No triture or agitation (as is well known) could effect either a ſolution or an uniform diffuſion.

Two grains of camphor, and the ſame quantity of myrrh, treated in the like manner, formed a compoſition ſufficiently ſmooth and equable.

As myrrh is a gummy reſinous ſubſtance, it is in ſome degree miſcible with water; but in a comparative trial, I found the union much more imperfect than when camphor was combined with it.

These experiments were ſuggeſted by the following incident, which lately occurred in my practice. Having directed a compoſition of camphor and balſam of Tolu, in pills, for a patient

a patient going a voyage on account of his health, the apothecary acquainted me that he could not form it into a proper maſs; and that it liquified like treacle. The experiment was afterwards made in my preſence. At firſt the two ſubſtances would not incorporate when rubbed together; and I ſuſpected that ſome S. V. R. had been uſed before, to promote their union. But the triture being continued, a ſudden combination and liquefaction took place.

Camphor probably acts as an eſſential oil in diſſolving reſin. When a compoſition is required of theſe ſubſtances in a pilular form, it is rendered practicable by the addition of a ſmall portion of the coagulated yolk of an egg.

II. I have lately preſcribed, with conſiderable ſucceſs, to various patients, a mineral water, which I believe is little known in England. It ſprings from the Heartfill Mountain, about three miles north of Moffat; and a very full account of it is given by Dr. Horſeburgh, in the firſt volume of the Phy-

ſical

cal and Literary Eſſays. A lady, who had been making a tour in Scotland, brought me a bottle of it ſome time ago; but I did not examine it till a caſe of chronic hæmorrhagy, attended by Dr. Eaſon and myſelf, ſuggeſted the trial of ſuch a ſtyptic remedy. The water appears to be a ſtrong chalybeate, and to contain a portion of alum. It is not unpleaſant to the taſte; and in the doſe of about a quarter of a pint, is grateful to the ſtomach. It relieves uneaſy irritations, and ſlight pains in that organ; promotes digeſtion; and abates flatulence, if taken before meals; and though acidulous in taſte, corrects acidity, and does not even coagulate milk when mixed with it. I have had experience of its efficacy in profuſe diſcharges of the *catamenia*, in the *fluor albus*, in *dyſpepſia*, in *ſtruma*, and other diſorders originating from a laxity of the fibres. In ſuch maladies chalybeates have been long employed; and Boerhaave, you know, ſpeaks of their virtues with enthuſiaſtic admiration, aſſerting that no medicine, either animal or vegetable; no diet, no regimen can produce the effects which are accompliſhed by iron.

And

And as I think the Heartfill Spa-water is one of the pleaſanteſt forms under which this active remedy can be adminiſtered with conſiderable efficacy; as the moſt faſtidious patients may be prevailed upon to take it, when drugs are loathed and neglected; as it is much cheaper, as well as ſtronger, than that of Pyrmont or Spa; and as it bears carriage without injury, it promiſes to be a valuable acquiſition. Its aluminous impregnation, alſo, adds to the medicinal powers which it poſſeſſes as a tonic, a ſedative, and a ſtyptic. There is often a morbid ſenſibility and irritability in the ſtomach and *primæ viæ*, which render the office of digeſtion uneaſy and painful; and create an habitual diſpoſition to flatulence, and to ſlight attacks of cholic. Alum, as I have noticed in a former work, is a valuable remedy under theſe circumſtances; and, combined with iron by the chemiſtry of nature, its energy as a ſtyptic will doubtleſs be encreaſed.

III. I have lately met with an inſtance of *Tuſſis Convulſiva* ſucceeding the croup, in a boy about three years of age. He was perfectly

fectly free from cough when ſeized with the *Cynanche Trachealis*; and hooped violently when that diſorder was removed. Are theſe two maladies of the ſame genus? In both there ſubſiſts a ſpaſm of the muſcles of the *glottis*, occaſioning ſymptoms of ſuffocation; and both are moſt effectually relieved by emetics and antiſpaſmodics; ſuch as the flowers of zinc, James's Powder, and muſk.

Such a membrane as is formed in the *trachæa arteria*, is ſometimes generated in the inteſtines. Lady A—— G——, aged two years, had an aphthous fever, during which a few aſcarides appeared in her ſtools. On this account, when ſufficiently recovered, ſhe took a doſe of rhubarb and calomel, which occaſioned the diſcharge of ſix or eight annular ſubſtances, reſembling in figure portions of guts, but evidently unorganized. I found them to be nothing more than gluten, ſecreted probably by ſome parts of the alimentary canal, affected by the fever with aphthous inflammation.

IV. Various writers, particularly the poets, have ſanctioned the notion, that in the JAUN-

DICE,

DICE, objects are painted on the retina of the ſame colour with that which tinges the external coat of the eye. This I regarded, till lately, as a vulgar error; and endeavoured to ſhew, in a treatiſe on the Alliance of Natural Hiſtory with Poetry, that it is neither confirmed by experience, nor conſonant to reaſon; and that in the worſt caſes of the jaundice now known, the ſymptom has no exiſtence. But two inſtances have lately occurred, in the circle of my practice, which clearly evince that the opinion has ſometimes a foundation in fact; and that concluſions, drawn even from a very general induction, may be fallacious: for my obſervations were made with attention, during a courſe of near twenty years. The patients now alluded to were men of middle age, who had lived intemperately, whoſe malady had proved obſtinate, but whoſe eyes were not tinged with bile in an extreme degree. Yet they were uniform in their teſtimony, that all white objects aſſumed a yellow caſt; and that this hue was deepeſt on their riſing from bed in a morning.

V. A

V. A few years ago a gentleman consulted me about the state of his eyes. He had for a long time felt an uneasy sensation whenever he viewed any square object; and this malady was then so much encreased, that, in playing at whist, he was under the necessity of holding the cards under his eyes, to preclude the sight of their angular points. The pupil of each eye was remarkably contracted, and the *tunica albuginea* slightly inflamed; yet a moderate light was borne without uneasiness. Vision was sufficiently distinct at all ordinary distances; but I suspected that the field of it was extremely limited; and that the patient, in viewing a quadrangular object when near, might possibly measure it by a muscular exertion of the organ, which gave pain. But of this he did not appear to have any perception; nor could he recollect the date, nor account for the origin of his disorder. He was not a fanciful or hypochondriachal man, nor did the complaint seem to depend on the state of his stomach. Some odd association of ideas perhaps at first gave rise to it. The gentleman lives at a distance from Manchester;

and

and having been only once consulted by him, I am unacquainted with the termination of this singular malady.

I am, with sincere esteem and respect,
Dear Sir,
Yours, &c.
THO. PERCIVAL.

ARTICLE VI.

Remarks on the Ascaris Lumbricoides, by J. CHURCH, M. A. *and* F. M. S.

Read February 4, 1788.

THIS species of worm, which is frequently found in the human stomach and intestines, is, I believe, often confounded by writers with a variety of the *Lumbricus terrestris*, mentioned by Linnæus under the name of *Intestinalis*, and by Ray called *Lumbricus intestinorum teres*; from which, however,

however, it evidently differs in its conformation, being entirely without the elevated ring ſo conſpicuous in the middle of the *Lumbricus terreſtris.*

As it has in general been the opinion of writers on this ſubject that worms are oviparous, and in conformity to that hypotheſis they endeavour to account for their introduction into the human body from their eggs having been received into the ſtomach with food, I beg leave to offer a few obſervations which came under my notice by accident, and which I think will ſerve to prove that this ſpecies, at leaſt, is viviparous.

Every one who has examined this worm attentively when newly diſcharged from the body, muſt have obſerved an appearance like white threads, folded as it were together about the middle of the worm. This ſubſtance has in general been ſuppoſed to be the inteſtines of the worm filled with the chyle it had juſt ſucked from the body out of which it proceeded; but the fact I am going to relate ſeems to prove beyond a doubt, that this

white

white appearance is in reality the young worms nearly fit for exclufion from their parent.

Some time fince, having a child under my care who had fymptoms of worms, I gave him a dofe of calomel for two nights fucceffively, and on the fecond day a fmart purge. On the afternoon of that day the mother brought me two worms in a cup, which fhe faid her child had juft difcharged per anum, and which both proved to be the *Afcaris Lumbricoides*: they were both living and pretty active. As I had not any fpecimen of that worm by me, I put them both into a phial filled with one third part of rectified fpirit, and two thirds water. This appeared to give them great uneafinefs, and whilft I was obferving their contortions, I perceived fomething like threads proceeding gradually from the middle of the belly of one of them, which advanced very fenfibly for about a quarter of a minute, at which time I could perceive three diftinct worms above an inch long, exactly like the parent, all alive and moving brifkly in different directions. About this time the death

death of the mother put a ſtop to the perfect excluſion of the offspring, who alſo died with her, and now remain hanging to the body. The other worm was no otherwiſe affected by the ſpirits, than by being deprived of its life; and on examining it, I could not perceive any of the thread-like appearance before deſcribed.

As ſome worms are certainly oviparous, as the *Lumbricus terreſtris*, &c. perhaps the young of this ſpecies, like the viper among the ſnake tribes, are excluded from the egg whilſt in the matrix of the female; but this future obſervations muſt determine.

A difficulty now remains, namely, to account for the introduction of this worm into the human body, particularly as it is never found in any other ſituation. It may not however be amiſs to remark, that this ſpecies occurs much more frequently among the negroes in the Weſt Indies than it does in this climate. Is it not poſſible that it may creep into the body by the mouth whilſt a perſon is aſleep on the ground? But I would

wiſh

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3

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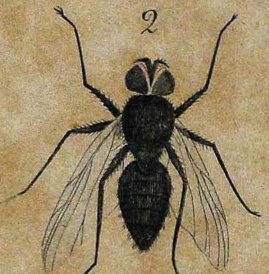


4

1. *The Musca cibaria of its natural size.*

2. *The same magnified.*

3. *The Pupa of the same discharged alive by the patient.*

4. *The same magnified.*

W.D

wiſh this to be conſidered merely as conjecture.

One practical inference may I think be drawn from the above, namely, that whenever one of theſe worms is diſcharged from the human body, we ſhould perſiſt in the uſe of anthelmintics for ſome time after, as there is a fair preſumption that ſome young ones may be left behind, who will not fail in time to produce the moſt diſagreeable and often fatal effects.

ARTICLE VII.

Caſe of a Patient who diſcharged the Pupæ of the Muſca Cibaria, by W. WHITE, M. D. *of York,* F. R. S. *and* C. M. S. *in a Letter to* J. C. LETTSOM, M. D. *&c. with additional Obſervations by* Mr. J. CHURCH, A. M. F. M. S.

Read May 12, 1788.

J. WATSON, aged about 30 years, by trade a watchmaker, ſober and temperate, but indulging a ſedentary life, having

been ſometime ill, came over here to put himſelf under my care. I found him much emaciated, his complexion very yellow, he had violent pains, with ſoreneſs and tenſion about the region of his liver, his body very coſtive, ſtools clayey and tenacious, urine in ſmall quantity and high coloured, pulſe quick and tenſe, he had frequent rigors, and other ſymptoms of pyrexia. But what diſtreſſed him the moſt was, a conſtant and extreme coldneſs in the lower extremities, which neither a fire nor the warmeſt covering had power to relieve for any time together.

It is unneceſſary to give a particular detail of the means uſed for his recovery; ſuffice it to ſay, that by repeated bleedings (his blood being very ſizy) cooling purgatives, nitrous medicines, and bliſters over the hepatic region, in about a fortnight he was much recovered; and finding every complaint, except the coldneſs in his legs and feet, nearly gone, he went home about fifteen miles from this city. My preſcriptions now were powders of the columbo root, with a ſolution of *ſal diureticus*, and once a week a calomel

bolus

bolus at night, with an opening draught next morning.

In about a month I had a letter from his apothecary; from which the following is an extract:

" Mr. Watſon has continued his powders regularly till within this week, when he reduced the number. He finds his appetite increaſe even to be deemed voracious; yet is careful not to overload his ſtomach. Notwithſtanding, after each meal he complains of pain about the breaſt, with a ſenſe of fulneſs. In general he is regular for ſtools; but laſt night, being more than uſually coſtive, he took the purgative, with which he had two ſtools in the morning, and diſcharged an immenſe number of worms, two or three of which at his deſire I ſend herewith: they were all very lively. His pulſe is good, and he thinks himſelf in every reſpect vaſtly better; his legs have begun to gain their natural warmth, yet he continues the additional covering and frictions. I hope the worms will reach you alive."

Thus far his apothecary. I received the worms, which were evidently a ſpecies of maggot, in a very lively ſtate. Putting them out of the pill-box, they crept about with ſurprizing quickneſs, not with the wriggling motion of the common maggot, but very nimbly upon their numerous feet, in which they ſeem to differ from the common ones, which I think have no feet.

Being replaced into the box, they were depoſited in a deſk, when, after ſome weeks, examining them again, I found them metamorphoſed from a worm ſtate into beautiful inſects of the fly kind; but theſe were dead from want of nouriſhment and air, the chryſales being now become dry and empty huſks.

The following remarks, with a drawing of the inſect, were communicated by Mr. Church, one of the Council of the Medical Society.

The inſect mentioned in Dr. White's paper, is the Muſca Cibaria of Linnæus. The larva of it is found in old culinary ſubſtances, eſpecially

eſpecially in old rotten cheeſe; and it ſeems highly probable that the patient had ſwallowed ſome of them with his food, which paſſed unhurt through the ſtomach into the liver, after having entered by the biliary ducts. This I am the more readily induced to believe was the caſe, from a circumſtance which happened to me in practice ſome years ago. A child diſcharged, per anum, a live worm with feet, which proved to be the larva of the *Phryganea grandis*, or cadworm, uſed as a bait by anglers. Now as this is an aquatic inſect, and feeds under water on other aquatic inſects, it is almoſt certain it muſt have been ſwallowed with ſome water, and paſſed unhurt through the inteſtinal tube till it was diſcharged.

That the action of the ſtomach will not always kill inſects, is evident from the circumſtance of the *Aſcaris Lumbricoides* living in it unhurt. The *phalæna pinguinalis* alſo not only lives, but is nouriſhed, and undergoes ſeveral metamorphoſes in the ſtomach, till at length it produces its moth. The worms diſcharged by Dr. White's patient,

appear to have been in the chryfalis ftate; and though the circumftance of their having feet, and moving them, is rather fingular, as the *pupæ* of moft *mufcæ* are entirely motionlefs, yet as we know that the pupæ of fome other infects, as grylli, blattæ, &c. have the fame power, it is poffible that fome mufcæ poffefs it alfo.

P. S. The fuppofition that thefe infects were nourifhed in the liver, and produced the difeafe under which the patient laboured, feems to be much ftrengthened by a cafe related by Dr. Thomas Bond, of Philadelphia, in Vol. I. of the London Medical Obfervations and Inquiries; where he defcribes a kind of leech, of an uncommon fize, which had long had its refidence in the liver of a patient, and was at length difcharged per anum.

A fimilar cafe is likewife related by Mr. Paifley, in Vol. II. of the Edinburgh Medical Effays.

ARTICLE VIII.

On the Efficacy of the Application of Cold Water to the Extremities in a Case of obstinate Constipation of the Bowels, with Remarks thereon, by WILLIAM FALCONER, M. D. F. R. S. *and Corresponding Member of the Medical Society of London.*

Read April 23, 1787.

A LADY about 28 years of age, daughter of a gentleman of rank in Ireland, had the misfortune to loſe her huſband, with whom ſhe lived very happily, about two years before the time of her coming to Bath. Her concern on this occaſion, which was very great, produced ſeveral bad effects on her health, particularly a violent pain, reſembling a cramp, about the region of the ſtomach, which uſed to continue for ſeveral hours, and to go off rather ſuddenly, with a ſenſation, as ſhe deſcribed it, of ſomething burſting in the ſtomach; after which ſhe could

could bring up air by gulps, which prefently gave eafe. Thefe paroxyfms ufed to attack her about once every *eight* or *ten* days; but the intervals were not regular, either as to the number of days, or time of the day. The caufe immediately producing thefe fits of pain could not be traced to any connection with any circumftance in her regimen or manner of life, but they attacked her indifcriminately, whatever food or manner of life fhe made ufe of. Although the pain was exceffive, her pulfe during the paroxyfms was in general fcarcely quicker than natural; nor was there any thirft or confiderable increafe of heat of the fkin. Sometimes it was attended with ficknefs and retching, but more frequently without thofe fymptoms. Coftivenefs feemed not to be connected with the complaint, as it had feveral times come on when the body was regular, and even in a lax ftate, though without purging. A ftool, however, procured during the paroxyfm, feemed, as fhe thought, to bring it fooner to a termination. In the intervals of her diforder fhe was tolerably eafy and cheerful, and had a moderate appetite. For the painful

ful and dangerous complaint above deſcribed ſhe had tried a great variety of medicines. Bliſters had been repeatedly applied to the region of the ſtomach and abdomen, ipecacuanha made into pills, with the aromatic pill, and that of ſtorax, taken in ſmall quantities, a compoſition I have ſeen of ſervice in habitual cholics, was tried, but without effect. A ſtrong infuſion of caſcarilla, and of the Peruvian bark, under the idea of the diſeaſe being of a periodical nature, was alſo exhibited, but with as little ſucceſs as the other trials. Opiates had been adminiſtered both internally and in external application, both in the intervals and alſo during the continuance of the pain, but without any other effect than ſome little temporary abatement.

In the evening of the 15th of June 1783, the weather being then very warm, ſhe was ſeized with her uſual pain in a manner rather more violent than common, to alleviate which, a clyſter of the domeſtic kind was adminiſtered, which produced, as I was told, three ſmall ſtools in the courſe of the night.

Next

Next morn (June 16) when I ſaw her firſt during this paroxyſm, her pain was very great, and continued ſo during the whole day, in ſpite of opiates adminiſtered both internally and externally, and the free uſe of fomentations. Two clyſters were alſo injected, but without effect, as they neither produced any evacuation, nor even came away themſelves.

The next day (June 17) finding ſhe had paſſed a very painful night, though without much fever, I directed a bliſter to be applied to the abdomen, and a clyſter of infuſion of warm herbs, with an ounce of the tinct. fœtida to be thrown up, and twenty grains of the pil. ſaponac. to be taken directly. In the evening, finding her ſtill without any evacuation by ſtool, though rather eaſier, I directed a purging mixture of infuſion of ſena, together with the tincture, to be taken every three hours. Next morn (June 18) ſhe was much worſe in every reſpect. Her pain was more acute, a diſpoſition to vomit frequently had come on, and no evacuation by ſtool had been procured.

A cordial

A cordial mixture of the ſpirituous and ſimple mint-waters was directed to be taken frequently in ſmall quantities, and an infuſion of a drachm of tobacco-leaves directed to be thrown up as a clyſter. About two o'clock the ſame day, when I viſited her again, I found all the bad ſymptoms aggravated. Her vomiting was become nearly inceſſant; no evacuation had been procured; and her pulſe had riſen to 108 in a minute, which was the firſt material alteration I obſerved in that circumſtance. Her urine was ſmall in quantity, and red and turbid. Her ſkin, which before had been ſoft and clammy, was now hot and dry, and the pain, which was before aching and pinching, now gave the ſenſation of burning, as if ſome heated body was in her ſtomach and bowels. In this ſituation I recommended firſt bleeding, and immediately after that operation was over, the application of cold water to the extremities; but I added, that as it was a thing rarely ventured on, and indeed not very generally known, and what I myſelf had no knowledge of from actual experience, that my opinion might be ſtrengthened by that

that of ſome other perſon, and deſired Dr. Dobſon might be ſent for.

When the Doctor came he approved of the bleeding, but thought it would be proper to try ſome other means before we ventured on the application of the cold water. She was accordingly bled to ℥viii, and a purging mixture of infuſion of ſena and tincture of jalap directed to be taken, three ſpoonfuls every three hours; which however was rejected immediately, as was a ſtrong ſolution of Rochelle ſalt, adminiſtered in the ſame manner. A clyſter of the decoct. com. with ſea ſalt, was alſo injected, but without ſucceſs.

The next morn (June 19) all her ſymptoms were aggravated, her cries and groans were now become inceſſant, and every motion, however ſlight, encreaſed them to a ſhocking degree. The ſmoke of tobacco had been attempted to be thrown up, but without ſucceſs, though often tried. She was again bled to ſix ounces; and two ſcruples of jalap were divided into two doſes, and

and one of them ſwallowed, but immediately thrown up; as was an ounce of caſtor oil, and twenty grains of mercurius dulcis. Fomentations had all along been frequently applied, but without much relief, or even temporary abatement of the ſymptoms.

When we viſited her next morn (June 20) all the ſymptoms were, if poſſible, worſe. Dr. Dobſon now conſented, when, I confeſs, I feared it was too late, to make a trial of the cold water, as I had before propoſed. To do this effectually was however no very eaſy taſk, as motion continued to give ſuch exquiſite pain. Nevertheleſs, with much trouble, ſhe was gently turned acroſs the bed, and her feet drawn over the ſide of it, and her back raiſed with pillows. An empty tub was then put to receive her feet; and her hands were placed in a large empty baſon. Both hands and feet were daſhed at the ſame inſtant with cold ſpring water, into which ſome common ſalt (in order to increaſe its coldneſs) had been juſt thrown. This was continued for the ſpace of three or four minutes. She expreſſed no diſſatisfaction; but ſaid her pain

pain was rather abated, and that ſhe felt a ſenſation of motion in her bowels, which ſhe had not before done during the preſent attack; and it was obſerved by her attendants that ſhe bore being moved back again into bed rather better than before. When ſhe had recovered her uſual warmth of temperature, which took place in about 15 minutes, the ſame operation was repeated, and immediately after it was over, ſhe ſaid that her pain began to abate, and that ſhe felt ſhe ſhould ſoon have a ſtool, which immediately followed, and was ſucceeded by many more plentiful evacuations of the ſame kind. As her ſtools came away, her pain and vomiting grew milder, and leſs frequent; but the profuſeneſs of the diſcharge weakened her ſo much, that her life appeared to be nearly in as much danger from the exceſs of the evacuation, as it had been before from its obſtruction.

Cold ſweats were almoſt inceſſant, and frequent faintings came on during the ſpace of two days after the commencement of the diſcharge taking place. Wine, however,

and

and other nouriſhing food frequently taken, ſupported her under the violence of the evacuation; by the aſſiſtance of which her ſtrength in a few days began to return. Her body in a ſhort time became regular, and ſhe had no return of the pain in her bowels, to which ſhe had been before ſubject, but her health continued weak, her ſpirits low, and her ſtrength diminiſhed; but ſcarcely, I think, ſo much as might have been expected from what ſhe had undergone. The ſoreneſs of the belly, which, during the continuance of the obſtruction of her bowels, was very great, went off in three or four days; but her appetite was but ſmall, and her ſtomach flatulent. In about a fortnight after the above complaint, ſhe went to Briſtol hot-wells, and continued there about two months, during which time I ſaw her twice; but ſhe had not during that time any return of the cholicky diſorder. From Briſtol ſhe went to Ireland, where in a few months ſhe died; but whether from a return of her diſorder of the bowels, I am not informed.

Remarks on the preceding Cafe.

The cafe above related affords an unequivocal proof of the good fuccefs of the application of cold water to the extremities in a moft obftinate conftipation of the bowels, attended with exquifite pain, fever, and probably a confiderable degree of local inflammation. It appears plainly from the foregoing narrative, which is related with all poffible accuracy, that the fituation and circumftances of the patient were very unpromifing. No abfolute figns of mortification had indeed appeared; but every fymptom feemed to indicate that fuch a termination of the diforder was upon the verge of taking place. This circumftance is highly material to be noted, as it teaches us not to defpair of fuccefs from fuch an application at any period of the complaint, even when attended with the moft difcouraging fymptoms, provided no figns of mortification have appeared.

Many reafons however concur to recommend the ufe of this remedy, before the dif-

eafe

caſe has proceeded to ſuch a length as in the preſent caſe, if ſuch trial be in our power. The application would no doubt have been at leaſt equally ſafe, had it been tried forty-eight hours before, and its chance of ſucceeding probably greater, as the complaint was leſs advanced. Another conſideration, equally important, is, the danger of bringing a large accumulation of purgative medicines into action at the ſame inſtant; which will probably be the caſe if we wait until the diſeaſe be far advanced. The immediate effect of the cold application, ſeems to be to rouſe the bowels from a torpid and indolent ſtate into action, and to impart to them tone and power of contraction. How hazardous then muſt it be to have the force of ſeveral (probably ſome very ſtrong) purgatives all exerted at one time? In the preſent caſe the life of the patient was probably ſaved by the purgatives that were given by the mouth, being thrown up. Had they remained, and combined their force with thoſe that were injected in clyſters, it is more than probable ſhe muſt have ſunk under it. As it was, it required the moſt unremitted at-

 tention,

tention, for nearly forty-eight hours, to ſupport her with the ſtrongeſt cordials, of the nutritious kind, under ſo profuſe an evacuation; which probably was excited only by the clyſters which remained undiſcharged. It would be prudent, therefore, when this application may be tried and provided, as will probably be the caſe, that many purgative medicines have been previouſly adminiſtered, and continue (however inactive they may for a while be) in the body, to have in readineſs ſome warm cordial of the nouriſhing kind; as bread panada, rice-gruel, ſago, and ſuch like, together with warm negus, mulled wine, &c. for the patient to take of frequently during the courſe of the evacuation; for the diſcharge will probably be ſo ſudden, and ſo profuſe, as to hazard immediate diſſolution, if this precaution be not carefully attended to.

I was under ſome concern on account of the tobacco clyſter which remained in the body three days. The violent, and even poiſonous effects of tobacco upon animal life, gave me ſome fears leſt ſuch an infuſion,

continuing

continuing ſo long undiſcharged, might produce ſome miſchievous effects. But this clyſter was diſcharged with the other ſtools, without cauſing any ſymptoms that could be aſcribed to it.

It is not meant to be concealed, that the trial of the above remedy was principally ſuggeſted to me by a well-known paper of Doctor Stevenſon's, in the ſecond part of the fifth volume of the Edinburgh Medical Eſſays. Two caſes in point are there related, which encouraged me to adviſe the experiment to be made. The Doctor there informs us, that ſome perſon, not of the profeſſion, having read, in a looſe leaf of ſome old book, that an obſtinate conſtipation of the bowels had been removed by throwing cold water on the feet, put it into practice in Holland, on an acquaintance of his and of the Doctor's, in a caſe of that kind, that had proved obſtinate to all Dr. Boerhaave's applications for ſeveral days. He adds, that he was at ſome pains to ſearch for the author of this hint, but could find nothing like it, ſave the account that Braſſavo-

lus gives of Savanarola's curing the Duke of Ferrara of a three days conſtipation, by making him walk barefooted on a cold wet marble floor.

But traces that might lead to ſuch a practice, may be found even in authors of high antiquity. Hippocrates * adviſes the external application of cold water in the tetanus, and in convulſive complaints; which Van Swieten obſerves, are attended with obſtinate

* Hippocr. Aphor. Sect. V. 21. De humidorum uſu XI. 16.

The following caſe from Hippocrates, which I met with ſince this paper was ſent to the Society, is very applicable to the preſent ſubject. " A woman in good health, and corpulent, having taken a medicine with a view of promoting pregnancy, was ſeized with pain in the ſtomach, and tormina of the inteſtines, together with enlargement of the abdomen. Her breath was obſtructed, and a great dejection of ſpirits accompanied the pain. She had thrown up ſome blood by vomiting, and had five times fainted away in ſuch a manner, as to be, to all appearance, dead. She had vomited by means of cold water, but without any relief of her pain, or

nate ſpaſm, and great pain and inflammation of the bowels. Alexander Trallianus gave cold water, as drink, in cholics ariſing, as he ſays, from hot and bilious humours, where the vital parts remained uninjured, and injected clyſters of the ſame: a practice that I have been informed, by an eminent phyſician, that he has ſucceſsfully imitated in caſes of obſtinate coſtiveneſs, and which was, he informed me, tried with advantage upon the late Sir Hans Sloane, towards the latter part of his life.

or difficulty of reſpiration. About thirty amphoræ of cold water were poured upon her; and this was the only thing that appeared to give relief. After this a large quantity of bile was diſcharged by ſtool; whereas, as long as the pain continued, nothing would paſs. —The patient recovered.

Γυνὴ ὑγιαίνουσα, παχεῖα, κυήσιος ἕνεκεν, απο καταπότου οδύνη εἴχετο την γαςέρα, και ςρόφος ἐς τὸ εντερον, και ὤδησε. Πνεῦμα δε προίςατο και αποςιη σὺν οδυνη. Και ἀιμα ημεσεν ου πολυ. Και εξεθανε πενταχις, ως τεθναναι δοκέειν. Και ουτε εμεσασα απο ὕδατος ψυχρου ἐχάλα, ουτε της οδυνης επιουσης, ουτε την πνοήν, υδατος δε κατεχυθησαι ψυχρου αμφορεες ὡς τριακοντα κατα του σωματος, και εδόκεε αρα τοῦτο μόνον ωφελέειν. Και υςερον κατω εχωρησεν χολη συχνη, οτε δε ἡ οδύνη ειχεν, ουδεν εδυνατο χωρησαι, και εβίω.

Hippocratis Epidemic. Lib. V. Sect. xviii.

Crato *, an eminent perſon in Medical Science, but concerning whoſe date I am not informed, and Valeſcus di Taranta, who lived about the year 1387, both performed great cures in pains of the bowels, by applying linen cloths, dipt in cold water, to the abdomen. Septalius † likewiſe, an author of later date, adviſes cold water to be given internally in violent cholicky complaints; and relates a remarkable cure that he performed by theſe means upon a Spaniſh nobleman, in the moſt deſperate circumſtances. Hoffman likewiſe tells us, that in the warmer climates, as in Italy, and eſpecially in the neighbourhood of Rome, cooling applications, and eſpecially cold water, is found by experience to be the moſt efficacious remedy. Amatus likewiſe, and Zacutus Luſitanus, adviſe not only cold water, but the uſe of ice alſo, in the bilious cholic.

Hoffman ‡ alſo deſcribes a caſe which happened at Leipſick, wherein he himſelf

* Quoted from Hoffman de Inteſtinorum Doloribus.
† Ibidem Hoffmanni.
‡ Hoffman de Inteſtinor. Doloribus, Obſerv. V.

was

was concerned, of a lady, who, after having tried in vain all the ufual remedies in the moft violent pains of the bowels, was at laft advifed by the phyfician that attended her, together with Dr. Hoffman, to make a trial of cold water, taken internally, which produced a plentiful perfpiration; which was fucceeded by quiet fleep, and a complete relief of all the painful fymptoms. The fame phyfician affured Dr. Hoffman that he had applied, and commonly with the beft fuccefs, linen cloths dipped in cold water.—From a review of the above, I am inclined to think that the ufe of this remedy is beft adapted, if not confined, to fuch cafes as are attended with fever and inflammation; and particularly with heat of the fkin. The effect of the cold application probably depends upon the fhock produced by the fudden change of temperature; and where this difference is not pretty confiderable, it is probable it will be of little fervice. I fhall not here enter into any argument concerning its mode of operation, or whether its action may be confidered in the light of a tonic ftimulant, or as a fedative; but whichfoever

of

of theſe opinions be adopted, I apprehend the effect muſt be proportioned in a good meaſure to the heat of the body, and the alteration produced in the temperature thereof, by the application of the cold water. Hippocrates, who lived himſelf in a warm climate, ſpeaks of the middle of ſummer as the beſt time of year for the trial of cold water in the tetanus. Alexander Trallianus confines its uſe to ſuch cholics as ariſe from hot bilious humours; probably meaning ſuch as are attended with heat and inflammation, and eſpecially in the ſummer ſeaſon. Zacutus Luſitanus and Septalius both ſpeak of cold water as a remedy proper to be tried in incipient inflammations attended with great heat and fever; and Hoffman himſelf thinks it particularly proper in the bilious fevers attended with cholic, that occur in hot climates. It is not unworthy of remark, that the caſe recorded by Dr. Stevenſon, as well as that above deſcribed, happened at the warmeſt ſeaſon of the year; Dr. Stevenſon's commencing on the ſeventh of July, and that above deſcribed upon the fifteenth of

of June, and when the weather was very warm.

It will be proper, when a trial of this remedy ſhall be made, to caution the attendants againſt any ill-placed timidity in uſing water not of the proper degree of coldneſs. The efficacy of the application depends on its making a ſudden and active impreſſion; which is only to be effected by a conſiderable degree of cold. So far therefore ſhould we be from any reſerve in this reſpect, that in warm weather we ſhould not only employ the coldeſt ſpring water we can procure, but even encreaſe that quality by artificial means. In the inſtance above deſcribed, the application of the cold water was made to the extremities; but in ſome of the other accounts the abdomen was the part on which this remedy was tried. Which of theſe modes of uſing it is to be preferred, I cannot determine. Perhaps they may be equally effectual. The feet and hands ſeem more convenient, if the patient can bear to be moved, and likewiſe afford the beſt opportunity for repeating the impreſſion of cold, by pouring

on

on fresh streams of water; but if this cannot be put into practice, cloths dipt in cold water may be laid on the abdomen, and frequently changed. It appears not improbable, that the vitriolic or nitrous æther, both of which produce a considerable degree of cold by their quick evaporation, might be employed with advantage. If used with this intention, it should be poured on the abdomen, and just spread over it, and suffered to evaporate without the part to which it is applied, being covered up. It has the advantage of producing a very sudden, as well as considerable degree of cold, and of not wetting the bed-clothes. Whether it may benefit the patient by any virtues of the anodyne kind, which it may be supposed to possess, when used in this way, I do not determine; but leave that hint to the empirics, with whom æther, under various disguises, has long been a favourite medicine.

ARTICLE IX.

On the Efficacy of the Gummi rubrum aſtringens Gambienſe (or as ſome term it the Gummi Kino) in Intermittent Fevers, and certain Preternatural Diſcharges. In a Letter to Dr. LETTSOM, *from* ANTHONY FOTHERGILL, M. D. &c.

"PLURIMA QUÆ ADHUC DESUNT SUPPLEAT ÆTAS."

Read October 16, 1786.

DEAR SIR,

I HAVE not been unmindful of your requeſt; and if the following paper ſhould prove ſuitable to your intended publication, it is entirely at your diſpoſal. The inquiry was begun at the entreaty of our late excellent friend Dr. J. Fothergill, who firſt introduced this new aſtringent gum into our *materia medica*, and whoſe account of it, as communicated in the firſt volume of the London Inquiries,

Inquiries, is the only one extant; at leaſt that has yet come to my knowledge. Having minuted down, agreeable to his requeſt, ſuch obſervations as occurred to me, I afterwards communicated the reſult. The former paper which I ſent him, and which is now miſſing, contained ſeveral experiments on its chemical and pharmaceutical properties. The preſent one gives ſome account of its medicinal virtues.

As the G. Gambienſe contains an aromatic, combined with an aſtringent quality, and therefore in ſome degree approaches to the Peruvian bark, it ſeemed not unreaſonable to ſuppoſe that it might poſſibly, in ſome caſes, ſupply its place; eſpecially where œconomy is no ſmall object, as in hoſpital practice, and amongſt the poorer ſort of patients in general; the Gum being not only conſiderably cheaper than the bark, but alſo much leſs liable to ſophiſtication. The principal caſes in which it was tried, were intermittent fevers and preternatural diſcharges. In ſome inſtances it ſucceeded far beyond my hopes; in others it diſappointed my expectation. But the

the general reſult (of which the following is an impartial account) at leaſt intitles it to further examination.

CASE I.

ANN MUSKETT, aged 18, of a robuſt habit, was ſeized in the autumn of the year 1767 with a quotidian ague. The paroxyſms were ſevere, always returning at midnight, attended with hiccup, and violent pain in her head and through her body. After ſhe had tried the bark, and ſome other medicines, at home for about two months without effect, ſhe came to the Northampton hoſpital, and was admitted an out-patient under my care. I recommended tinct. gum. gambiens. prepared with proof ſpirit, in the following method:

℞. *Gum. rubr. Aſtring. Gambiens. pulv.* ℥ij.
Sp. vini ten. lbj.
Digere dies ſex & cola.

A ſimilar tincture, I am glad to find, has at length been adopted into the new edition of

of the Edinburgh Diſpenſary, which it is preſumed will be found much ſuperior to the tinctura japonica; half an ounce to be taken an hour before the fit, in a draught of herb-tea, and to be repeated every four hours during the intermiſſion. The fits ſoon became milder, and the tincture was continued. In about a month the ague wholly diſappeared, and ſhe was diſmiſſed with an injunction to return in caſe of a relapſe; but as ſhe continued free from complaints, ſhe found no occaſion to reviſit the hoſpital.

CASE II.

SARAH CULL, aged 14, of a ſound conſtitution, was admitted Dec. 17, 1767, for a quotidian ague, which ſhe had had about ſix weeks, attended with the uſual ſymptoms. After an emetic, ſhe took every four hours a ſcruple of the gum. gambien. in herb-tea. It occaſioned no ſickneſs or nauſea (which ſometimes indeed happens when the gum is given in ſubſtance); but, on the contrary,

contrary, her appetite during its uſe, daily improved. The ague ceaſed in leſs than ten days, and ſhe was diſmiſſed cured.

CASE III.

ANN POOL, aged 37, of a very feeble conſtitution, had for ſeveral years been afflicted with hyſteric ſymptoms, for which ſhe became an hoſpital patient, Auguſt 15, 1767, and was in ſix weeks conſiderably relieved by extr. cort. peruv. & ſp. vol. fœtid. But what ſeemed remarkable, ſhe was, during a liberal courſe of the bark, ſeized with a tertian intermittent, againſt which the grand febrifuge (as it is commonly termed) appeared to have loſt its wonted efficacy. In its place therefore, I ordered her half a dram of the gum. gambien. to be taken every four hours between the paroxyſms, without any previous emetic. This ſhe continued about a month, when the ague left her, and ſhe was diſcharged. It may not be improper alſo to add, that the daily uſe of the bark, and after-

wards of the aſtringent gum, did not at all interrupt the regular return of the catamenia at the uſual period. A circumſtance which I have ſometimes obſerved in other caſes during the uſe of powerful aſtringents, and ſeems not unworthy of attention.

CASE IV

JONATHAN WILLES, middle aged, was admitted an hoſpital patient, Dec. 5th, 1767, having laboured under a tertian ague for nine months, for which he had taken bark about three months, but without any laſting benefit. The diſeaſe was attended with a ſevere cough. After an emetic of antimonial wine, I directed half an ounce of tinct. gambien. in warm linſeed tea every four hours, and a common linctus to be taken occaſionally when the cough was troubleſome. The ague entirely diſappeared in leſs than a month, but the cough, which had been of long ſtanding, ſtill continued, though in a leſs degree; at length, however, it yielded to country air and ſuitable medicines.

CASE

CASE V.

ELIZ. BROUGHTON, aged about 40, was admitted May 7, 1768, for a tertian ague of a month ſtanding. An emetic was ordered, and the tinct. gambien. as in the preceding caſes. The ague left her in three weeks, but returned the week following. On repeating the medicine, ſhe ſoon recovered without ſuffering any further relapſe.

CASE VI.

THOMAS HALL, aged 20, was received into the hoſpital, Nov. 21, 1767, for a tertian of ſix weeks ſtanding, accompanied with the ordinary ſymptoms. I ordered a vomit, and afterwards a ſcruple of g. gambien. in herb tea every three hours; and in three weeks he was diſcharged cured.

CASE VII.

JOHN LUCK, middle aged, and of a ſickly conſtitution, was admitted Decem. 5, 1767, for an obſtinate intermittent, under which he had laboured for ſeveral months, during which it had aſſumed various types, and of late had become totally irregular. After an antimonial emetic, the tinct. gambien. was given between the fits as above, by which means the diſeaſe became much leſs ſevere, but ſtill the paroxyſms returned at irregular periods, notwithſtanding the medicine was continued almoſt two months. Tinct. cort. peruv. was now given in its ſtead, and an antimonial ſudorific during the paroxyſm; nor had theſe any better ſucceſs, for the ague continued as obſtinate as ever during the remaining winter, and even till the ſpring was conſiderably advanced, when it went off ſpontaneouſly; rather perhaps in conſequence of the genial warmth of the ſeaſon, than real utility derived from any of the medicines. Hence the wonderful cures of agues ignorantly attributed to a variety of the

the moſt abſurd and inſignificant remedies, merely in conſequence of the noſtrum being adminiſtered at this lucky period.

CASE VIII.

ELIZ. GADSDON, aged about 50, of a very ſlender habit, had long laboured under an irregular ague, which had been repeatedly ſuppreſſed by the cortex, but ſtill returned, and of late had aſſumed the quartan type. She was admitted Novemb. 21, 1767. An emetic was firſt given, and afterwards the tinct. gambienſ. every three hours during the intermiſſion. This ſhe continued for the ſpace of three weeks, when ſhe was diſmiſſed cured.

CASE IX.

HAN. POWELL, about 40 years of age, and of a delicate conſtitution, was admitted December 5, 1768, having laboured under an obſtinate quartan a whole year, which had

refifted the bark, and various other medicines. What was remarkable in this ague, the fit always begun in the foles of her feet; after which it gradually afcended to her head. An hour before the approach of the returning fit, I ordered her an emetic of vinum antimoniale, and about fix drachms of the tinct. gamb. to be taken in an infufion of mint every four hours during the apyrexia. The ague difappeared in about five weeks, and fhe was difcharged; but fhe had not been many days abfent before fhe relapfed. Upon which, the tincture was repeated for a fortnight longer, when the ague again difappeared, but did not afterwards return.

CASE X.

JOB WRIGHTON, aged about 40, of a flender habit, was admitted Dec. 19, 1768, for a ftubborn quartan of the autumnal kind, for which he had taken bark without fuccefs. After a common emetic, the tinct. gambien. was adminiftered as above, by which the fits became much milder, till the weather

weather grew extremely cold, when the diſeaſe increaſed, and all the ſymptoms were aggravated. The bark was again tried, with an addition of crude ſal ammon. but the ague continued to gain ground, and from a quartan became a quotidian. Now the emetic was repeated, and likewiſe increaſed doſes of the tinct. gambien. An antimonial diaphoretic was alſo adminiſtered an hour before the fit. The paroxyſms grew ſhorter, and the diſeaſe ſoon yielded to this method without any ſubſequent relapſe.

CASE XI.

W. MAYE, aged 24, of a ſlender habit, having about the beginning of Dec. 1767, juſt recovered from a jaundice, was ſeized with an obſtinate quartan ague. The paroxyſms were long and ſevere, but not accompanied with any unuſual ſymptoms. An emetic was firſt exhibited, and afterwards half a dram of the g. gambien. in a draught of herb tea, every four hours. Before he had taken the twelfth doſe, the ague va-

nifhed, and though from that time he dif-continued the medicine, it did not return.

CASE XII.

RICH. ALLEN, a robuft man, aged 40, was admitted Jan. 28, 1769, for an autumnal quartan, which had continued obftinate above four months. The cold fit generally lafted full three hours, during which his appetite was voracious, and he eagerly devoured not only his own food, but alfo that of the other patients, when he could get it. The rigor was fucceeded by a very fevere hot fit, which continued feveral hours. After an emetic, he took half a drachm of the g. gambienfe every four hours during the intermiffion. The fymptoms abated, and at length ceafed for about ten days, and then returned with greater violence. The emetic was now repeated, double dofes of the gum were adminiftered, and an anodyne pill, with extr. thebaic at the beginning of the hot fit. The paroxyfms from this time became milder, his appetite more moderate, and in about three

three weeks longer the ague entirely diſappeared. It may not be improper to obſerve, that in ſome other obſtinate agues, which have occurred ſince, wherein the hot fit was attended with acute pains in the head, or through the body, an opiate was given at the approach of this ſecond ſtage of the paroxyſm with good effect. It ſeldom failed to alleviate the ſymptoms by exciting a copious perſpiration, ſucceeded by a placid and refreſhing ſleep. This method, however diſſonant to ancient maxims, is now ſufficiently eſtabliſhed by the experienced Dr. Lind, in his valuable Obſervations on Diſeaſes of Hot Climates.

In the preceding caſes, no auxiliary medicines were employed, except thoſe which have been ſpecified, nor indeed was there much need of them, as the gum alone, after the uſe of an emetic, generally anſwered every intention of cure. The authenticity of theſe caſes (being chiefly hoſpital ones) may at any time be confirmed, by comparing the above extracts with the regiſter kept in the hoſpital book.

The

The ſucceſs of the aſtringent gum in ſome of the preceding inſtances, and particularly where the peruvian bark had failed, may ſerve to ſhew that it is not undeſerving the attention of practitioners. It is by no means, however, offered to their conſideration as a ſpecific in intermittents; nor muſt it be concealed, that in three later caſes, which ſeemed in no wiſe different from ſome of the foregoing ones, it entirely fruſtrated my hopes, and the cortex afterwards, though not without much difficulty, performed a cure.

In preternatural diſcharges, the gum gambienſe has been tried with various ſucceſs. To tranſcribe the hiſtories at large would extend this paper to an immoderate length. Let it ſuffice therefore to obſerve in general, that in profuſe diſcharges of the catamenia, it has ſometimes afforded ſignal relief. Likewiſe in recent diarrhæas and dyſenteries, after the neceſſary preparative evacuations. A youth of 14, who from infancy had been troubled with an incontinency of urine, was remarkably relieved by the daily uſe of the gum made into an electary with ſyr. e mecon.

In

In the fluor albus, it has hitherto generally disappointed my expectation. In one case of a chronic dysentery; in another of a diabetes; and in a third of a seminal weakness, it was tried a long time with no better success. In justice to the medicine, however, it ought to be observed, that the two former cases afterwards baffled a variety of other remedies, and at length terminated fatally: the latter remained far from being cured. But on what article in the Materia Medica can we rely, where the internal organs are decayed, or have entirely lost their natural tone? How often in such untoward cases, have we not occasion silently to lament the inefficacy of our most celebrated remedies, and candidly to acknowledge the imperfection of our art!

Such at least are the real sentiments of,

Dear Sir,

your sincere friend,

Bath, Sept. 24, 1786.

A. FOTHERGILL.

ARTICLE

ARTICLE X.

An Account of a Case of a Tetanus successfully treated by the Use of Calomel, Bark, Wine, and the Cold Bath; in a Letter from Mr. JOHN THO. SHOAFT, *Student of Medicine at* ANNAPOLIS, *to* Dr. BENJAMIN RUSH, *of* PHILADELPHIA. *Communicated by* Dr. RUSH, *in a Letter to* J. C. LETTSOM, M. D. &c.

Read December 3, 1787.

FROM a presumption that your humanity will be pleased at being informed that a fellow-creature at this moment, perhaps, owes the blessings of life and health to your discoveries, I have taken the liberty to intrude on your time the relation of a case of tetanus, whose happy termination is sufficient to establish the mode of practice recommended by you in this disorder *.

To Dr. Murray, of Annapolis, my preceptor, under whose care I imbibed my earliest ideas

* Memoirs of the Medical Society, Vol. I. page 65.

ideas of medicine, an application was made by a gentleman, whofe negro boy, as he expreffed it, "was lying at death's door with "a lock jaw, arifing from a wound in his "foot." I mentioned to the doctor your method of cure. He readily acquiefced, and directed me to purfue it.

The gentleman lived fome miles from this city, and conceived the cafe fo far beyond the power of medicine, that he thought it unneceffary the boy fhould be vifited; and only wifhed fuch medicines and advice as might be thought proper, from his report of the complaint, to be given to him. This, with fome other reafons, prevented my feeing the patient during the difeafe, though very much interefted in the event, as I had been a witnefs to the melancholy termination of fome other cafes of this nature, in which opium, warm and cold bathing, had been employed to the utmoft extent propofed by the lateft and beft authors upon this fubject. I wrote to the gentleman freely at the time the application was made, and begged him to pay attention to the fymptoms and the effects of the

the courſe propoſed. He has ſince very politely and ſenſibly given me an accurate deſcription of the caſe, and anſwered with candor all the queſtions I propoſed to him.

A negro boy, about thirteen years of age, deſcended from healthy parents; of a robuſt conſtitution, and not ſubject to intermittent fevers, which prevail in that part of the country in which he lives, and who, from his infancy, had been expoſed to the hardſhips of a Maryland negro, by accident on the 29th of May ran a large ſplinter into his foot, near the inſertion of the flexor primi internodii policis pedis: it penetrated a conſiderable depth, and was in part extracted, but with difficulty, by ſome of the family. Little blood iſſued from the wound, which remained painful four or five days, without any appearance of ſuppuration, and ſcarce any of tumefaction; when by a ſecond attempt the remaining part was extracted, and the wound immediately healed. Some days elapſed without any complaint from the patient, or any attention from the family. June 10, he complained of a rigidity in the ſmall

ſmall of his back, with ſlight ſpaſms extending to the ſhoulders (particularly confined to this tract). 11th, he complained of extreme pain, and the ſpine was a little bowed. 12th, the ſpaſms extended to the neck, and he had a difficulty in deglutition. His maſter applied a bliſter to the back of his neck, which ſeemed to afford ſome relief; however, in the courſe of the two following days the whole body was in a ſtate of rigidity. The jaws became clenched in ſuch a manner, that it was with great difficulty any thing could be got into the mouth. The ſpaſms recurred with violence and rapidity; the ſenſorium at times was much diſordered; yet, in the momentary intermiſſions of convulſions, he expreſſed in the ſtrongeſt terms his ſenſe of hunger. His belly was bound; and he had no diſcharge of fæces for three days, although injections had been adminiſtered night and morning. June 14th. This was the ſtate of the patient when application was made for aſſiſtance; when the following medicines were ordered:

℞. *Calom. ppt. gr.* x. *ſta. ſumend. et repet. hora quarta ſi alvi ſolutio non ſuperven.*

He

He took two doſes, which procured four dejections. There was no alteration in the recurrence of the ſpaſms, and no delirium this night. 15th, took eight teaſpoonfuls of bark, and a pint of Madeira wine, and was bathed three times in cold water; he took likewiſe one grain of opium at bed-time. Symptoms not increaſed; dozed a little thro' the night. 16th, Complained of ſore* mouth and gums, took ten doſes of the bark, had a pint of wine, was bathed as before, and took a grain of opium at bed time. 17th. The ſpaſms were not ſo frequent, and the muſcles of the jaws were ſomewhat relaxed. His mouth was a little ſore. He continued the bark, wine, and cold bath, without the pill at bed time. Appearances grew more favourable daily. On the 21ſt the maſter informed us the boy grew ſo much better as to ſit up, though he was not perfectly relieved from the convulſions, and had ſtill a ſlight rigidity in his jaws. He was directed to continue the ſame courſe, and to uſe a rich invigorating

* If this aroſe from the mercury, and the cold bath was continued after, is it not a proof that they may ſometimes be uſed together?

diet

diet for a week longer; when I had the pleaſure of being acquainted, by a very polite letter, which contains in ſubſtance what I have related reſpecting this caſe, that the patient was in perfect health, and that a total deſquamation of the cuticle had taken place.

In the firſt inſtance, I directed an inciſion into the part wounded, and ſome ſtimulating application to be uſed; but this was omitted. The cold bath was continued for ten minutes at a time, and applied by pouring buckets of cold water over the head; after which the patient was well rubbed, and put to bed. The pleaſure I experienced in the ſucceſs that attended this caſe, has, if poſſible, more firmly impreſſed the opinions I had readily embraced from your publication on this ſubject. Its cauſe is certain debility, and its cure muſt depend on thoſe remedies which moſt powerfully obviate it.

I am, Sir,

your humble ſervant,

JOHN THO. SHOAFT.

ARTICLE XI.

An Account of a Caſe of Tetanus ſucceſsfully treated by the Uſe of Calomel, Bark, and Wine; in a Letter from Dr. CORNELIUS CONYNGHAM *of* VIRGINIA, *to the Hon.* GEORGE MASON, *Eſq. Member of the Convention of the United States, aſſembled in* PHILADELPHIA, 1787. *Communicated by* Dr. BENJ. RUSH, *to* J. C. LETTSOM, M. D. &c.

Read Dec. 3d, 1787.

DEAR SIR,

AS the communication of the following caſe may be of uſe to the public, I hope you will excuſe the trouble I give you in requeſting you to ſhew it to Dr. Benjamin Ruſh; who is at liberty to make what uſe he may think proper of it.

On the 18th of May I was ſent for to a negro boy of yours, ten years of age, and of a robuſt make. He had loſt the uſe of his

his limbs (as the overſeer expreſſed it) three or four days before, and was now all over rigid, except his arm; and he had been coſtive from the very beginning of the diſorder. I immediately gave him fifteen grains of calomel, and had thoughts of uſing the warm bath and opium; but having lately read a piece of Dr. Ruſh's, on the cure of the tetanus by bark and wine, from the reaſoning there uſed, I did not heſitate to put his mode in practice; and directed, if the calomel did not operate in two or three hours, to give him a drachm of the bark, in a glaſs of port wine every two hours. 20th. He had a plentiful ſtool; after which he appeared to be much eaſier. 21ſt. I ſaw him again, when he could move his head from ſide to ſide; though the ſtiffneſs elſewhere was much as before. I directed a doſe of ſalts for him the following morning, provided he had not a ſtool before that time. 22d. He complained of a ſoreneſs of his mouth and throat; and on examination, the inſide of his cheeks and tonſils were found to be ulcerated. Remarking that Dr. Ruſh adviſes the raiſing an inflammatory diatheſis in this diſorder, I was

not at all alarmed, as I apprehended that it arofe from the mercury's lodging fo long in his bowels; and therefore only directed his mouth to be gargled with alum water. 25th. I found him fitting up, the forenefs in his mouth and throat gone, his appetite good, and belly regular; his legs and thighs ftill ftiff, and belly hard; but the fpafms evidently on the decline. June 9th. Still mending, but the left leg and thigh ftill rigid. Some days ago he voided five worms, about four or five inches long, at one ftool; and in a day or two after, he voided four more, all dead. I directed four grains of calomel to be given at night, and a gentle purgative in the morning; the bark to be continued as before. 15th, I was informed by Capt. Wm. Mafon that the boy was walking about; that the laft dofe of mercury had very happy effects, but that no more worms had come away. He took twenty ounces of bark during his illnefs.

As the above cafe terminated happily, I think the public highly indebted to Dr. Rufh, who firft fuggefted the curing of this diforder by bark and wine; but as mercury has been

mentioned

mentioned by ſome eminent writers, I thought proper in this caſe to continue it with the bark, and was happy to find it anſwered the deſired intention. There may ſome doubt remain with reſpect to the primary cauſe of this boy's complaint. The worms he diſcharged may be ſuppoſed to have ſome ſhare in it; but the overſeer ſays he lay out of doors the greater part of an evening, after a hot day, previous to his being ſeized with the ſpaſms.

In this caſe, as there had no opium been given through the whole courſe of the complaint, the coſtiveneſs muſt have been the effect of the diſeaſe. Small doſes of calomel were repeated for ſome time after, at the interval of every two or three days, until he got entirely well.

I am, Sir, with reſpect and eſteem,
your obedient and humble ſervant,
CORNELIUS CONYNGHAM.

Colcheſter, Aug. 19, 1787.

ARTICLE XII.

A Case of the Uterus lacerated by the Force of Labour Pains, by JOSEPH HOOPER, *Surgeon, and* F. M. S.

Read November 6, 1787.

A Gentlewoman, who was taken in labour about four o'clock in the morning, ſent for me in a great hurry about eight. She had had three children before, and (though ſhe had been attended at different times by two eminent practitioners) they were all ſtill-born, from the difficulty of her labours; ſhe being very corpulent, her pelvis narrow, and children large. However, from ſtrong recommendation, ſhe entertained great hopes of my delivering her of a live child; of which both ſhe and her huſband were extremely deſirous. Upon entering the room, I found her in very ſtrong pains; and by the touch perceived the membranes puſhed to the middle of the pelvis, but rather of a conical

nical form. I could eafily feel the os internum towards the pubis, but a great part of its fegment towards the facrum was out of the reach of my finger; nor could I feel any part of the child prefenting. In about half an hour the membranes broke, as fhe took a ftrong pain fitting on the clofe-ftool, and a great quantity of coffee-coloured water was evacuated; her pains ftill continuing very frequent and ftrong. I then examined again, but could ftill find nothing prefenting. In about an hour more I could juft feel the child's head high up at the brim of the pelvis; but ftill finding the vacancy in the os internum, I attributed it to a laceration which might have happened in one of her former fevere labours. I therefore encouraged her to wait with patience till the head fhould further advance into the pelvis, when I flattered myfelf there might be a chance at leaft to fave the child with the forceps; to which end I kept her as quiet as poffible, fupporting her with broth, and, as fhe complained of great thirft, fome balm tea occafionally. But though the pains continued ftrong, with (as fhe called it) a tearing fenfation in her back,

 even

even in the intervals of the pains; yet as I examined from time to time, I could not perceive the leaſt advance, nor indeed did the head, during a pain, ſeem to be at all protruded. About four in the afternoon ſhe ſaid the pain had entirely left her back, and was wholly in her belly and thighs, with continual nippings within ſide her belly. After this, upon touching, I found the head rather higher than before, which diſheartened me not a little, eſpecially as her pains began to abate conſiderably. I then, the more thoroughly to ſatisfy myſelf as to the ſituation of the head, introduced my left hand, and with my fingers, in a flattened form between the head and ſacrum, felt the left ear. In doing this I did not meet with the leaſt preſſure from the child's head, which was quite diſengaged; nor could I even now feel the poſterior part of the os internum. Being, however, ſatisfied as to the poſition, I withdrew my hand, the pains ſtill growing leſs frequent and weaker; but ſhe lamented greatly the nippings and pinchings in her belly, which rather increaſed as the true labour pains decreaſed. She had frequent reachings, but brought up nothing

nothing except wind. Sometime after, upon touching during a pain, the head was not to be felt. I then desired her to sit on the side of the bed a little while; after which I again examined, and found it just as before. Upon considering this circumstance, with the state of my patient, who was now much lower and fainter than she had been all day, that some small hæmorrhage, which at times had appeared from the beginning of her labour, was now increasing, that the pelvis was narrow, and the child probably large, I began to despair of the child, and was very uneasy on the mother's account; I desired, therefore, that another of the profession might be called in, before any step was taken respecting the delivery. Accordingly Dr. Griffiths (who had delivered her before with the crotchet, after opening the head) was sent for, and came about eight o'clock in the evening. The Doctor having acquainted himself with the situation of affairs, and considering that, as the child's head was so high up, no attempt could be made with the crotchet, as in her former labours, the head then being fixed in the pelvis; that as her children were formerly large,

large, and the pelvis ſmall, much difficulty and danger muſt attend turning: and that our patient's condition would not admit of much delay, from which no benefit could be expected; and as her pains were now quite gone, and ſucceeded by a great faintneſs, the caſe appeared extremely unhappy and dangerous. However, as ſomething muſt be done, we concluded to turn, if poſſible, and deliver footling; and this we were the more encouraged to do, as the Doctor, upon examining the abdomen, felt two diſtinct ſubſtances, which he ſaid he was in hopes were two children, and conſequently ſmaller than if only one. I therefore, as ſhe lay on her left ſide, introduced my left hand, on account of her belly being rather pendulous; and as the face of the child was to the right ileum, I paſſed my hand over it, and along its belly, till I reached both the feet: and this I did without feeling that ſtricture which the uterus generally cauſes upon the hand, when the waters have been for ſome hours evacuated; inſtead of which I met with ſome little embarraſſment, from my fingers being entangled with a looſe floating ſubſtance; which,

which, however, I did not much attend to at that time. I told the Doctor that I felt that body (as my hand paſſed along) which he hoped was another child; but which to the touch did not ſeem to be ſo. I felt likewiſe a ſtronger pulſation at the vertebræ lumborum, than I had ever obſerved in any ſuch delivery. But though I brought the feet down to the os externum without much difficulty yet it was not without many efforts, both from the Doctor as well as myſelf, with change of poſture ſeveral times, that we delivered as far as the nates. And though we now and then ceaſed operating, and ſupplied our patient with frequent ſuppings of wine and water, yet ſhe ſunk ſurpriſingly, grew inſenſible, clammy, and died about ten o'clock the ſame evening; at a time when we were in great hopes of completing the delivery.

The next morning I was deſired to come and open the body, in order to take away the child. Upon making my inciſions in the uſual manner, a large quantity of blood flowed off; and the firſt part that preſented itſelf

itſelf immediately under the peritonæum was the uterus, whoſe fundus reached to within about a hand's breadth of the navel, and whoſe ſize was that of a man's two fiſts. On examining its ſurface, I perceived a laceration towards the ſacrum from the os internum, to more than half way to the fundus. Under the uterus lay the child's head and ſhoulders, with its face to the left ileum, one arm over the pubis, and the other at the ſacrum. I then took out the child from the ſituation in which we had left it the preceding night, which was of a monſtrous ſize, of a livid colour, and with the cuticle in many places peeling off. I next drew out the placenta, which was quite looſe in the abdomen, detached from the uterus.

From theſe appearances, joined to the circumſtances of the labour, we were clear that the laceration of the uterus was begun before the membranes broke, and increaſed by the pains, till the child, with the placenta, was entirely excluded into the cavity of the abdomen.

ARTICLE

ARTICLE XIII.

Caſe of Vomiting in Pregnancy, ſucceſsfully treated, in a Letter from W. VAUGHAN, M. D. *and* C. M. S. *Leiceſter, to* J. C. LETTSOM, M. D. *&c.*

Read October 22, 1787.

IT is an obſervation, if I miſtake not, made by the candid and ſagacious Sydenham, that the man who could diſcover certain means of curing ſo trifling a diſeaſe as a corn, would deſerve well of the public. Indeed, whatever contributes to diminiſh or alleviate the calamities of life, has its value; for pain, notwithſtanding the pride of philoſophy, is an evil; and an evil which will compel the ſufferer to ſeek means of relief; not only our profeſſion then, but the community at large, is under obligations to the individual who multiplies the means of obviating, or mitigating pain, when it occurs. The diſeaſe which

which I intend to make the ſubject of this paper, is a very common and a very trouble-ſome one; and, though probably coeval with human nature, has never, ſo far as I have obſerved, or could learn from inquiry, found an adequate remedy; I mean the ſick-neſs and vomiting which accompanies early pregnancy. The phyſician who could point out an effectual remedy for theſe trouble-ſome ſymptoms, would I am ſure deſerve, and I dare ſay would obtain the beſt and moſt grateful thanks of the amiable part of our ſpecies at leaſt. I am not ſo fortunate as to poſſeſs any ſecret of this kind, and therefore the reader will not expect it from me; but I will relate to him a caſe wherein nauſea and vomiting, as attendants on preg-nancy, occurred in a much greater degree than uſual, where theſe ſymptoms laſted much longer, and when the conſequences were of the moſt ſerious kind: he ſhall alſo be informed of the means which I employed to obviate them, and which ſoon proved ef-fectual: if by this information he may pro-fit, I ſhall attain the end I have in view.

A lady

A lady of a very delicate frame, with dark hair, much ſubject to nervous affections, found herſelf, in the 31ſt year, for the ſecond time pregnant. The nauſea and vomiting, which in that ſtate ſo frequently occur in a morning, in this inſtance tormented her not only in a morning, but during a greater part of the day; and although ſhe was now entered upon her ſeventh month, theſe were in no reſpect abated, notwithſtanding ſhe had employed a variety of remedies which had been recommended to her. It was in this ſtate of the lady's pregnancy that I was firſt called to ſee her. I found her much emaciated, melting away under profuſe ſweats (the weather was very warm) whilſt in bed; to which a reduction of her ſtrength confined her almoſt altogether. If ſhe attempted to ſit up, ſhe was immediately fainting; and if ſhe was diſpoſed to ſleep, ſhe was perſecuted with ſuch horrid dreams, that it was her earneſt requeſt to her attendants to wake her as often as they found her aſleep. During this time, the quantity of food taken in 24 hours was inconſiderable indeed; and though inconſiderable, was immediately rejected. The appetite

tite was allowed to point at any kind of food, however ſingular (and ſometimes, we know, in this caſe ſingular enough it is) which it was my intention ſhe ſhould be indulged with; but this was in vain. Once or twice a very ſmall bit of broiled bacon was ſwallowed, and ſtaid longer than any thing; but the quantity was too trifling to admit an expectation that her exhauſted frame could derive ſupport from this. The moſt inſipid, as well as the moſt poignant food was placed before her; but without exciting an inclination on her part to partake of them. We did not ſucceed any better by placing a variety of fruits in the ſame ſituation; if any was ſwallowed, it was immediately rejected. At times ſhe found herſelf much annoyed, by a large quantity of wind being confined in her ſtomach and bowels. By the importunity of her friends, ſhe was now and then prevailed upon to take a ſmall ſpoonful of burnt brandy for this laſt complaint; which generally gave her relief. Her thirſt and heat were inconſiderable; her pulſe beat under one hundred ſtrokes in a minute. Under all theſe miſerable circumſtances there were no appearances of a miſ-

carriage;

carriage; on the other hand, the child gave the moſt active ſigns of being alive and well. The profuſe ſweating, with the terrible dreams, were not of more than ten days ſtanding; but the vomiting had commenced at the earlieſt period, and inſtead of any abatement, it had manifeſtly increaſed to the pitch it was now arrived at. Her apothecary had adminiſtered anti-emetics of the moſt eſtabliſhed character, and had been careful to prevent any accumulation of fæces in the inteſtinal tube, by the occaſional interpoſition of clyſters; but without gaining the leaſt poſitive advantage. In this emaciated ſtate, worn down with ſleepleſs nights, exhauſted by profuſe ſweats, terrified with horrid dreams, and teized with perpetual vomiting, I found this poor lady; and I will freely confeſs was much puzzled to form a plan of treatment which ſhould ſatisfy myſelf, and prove of uſe to her. Indeed I had no expectation that medicine was more likely to remain on the ſtomach than food and opium. Fixed air, with other anti-emetics, had been already tried, but in vain. It ſtruck me that the firſt point to gain was

 that

that of enabling the ſtomach to receive and retain food; for if this could be done, I had no doubt but her other ſymptoms would gradually diminiſh: the difficulty, however, appeared to be great. I was willing to hope that much of this complicated evil was founded on habit; and on this ground I took my ſtand. I at length determined to begin with abandoning every attempt to convey nouriſhment into the ſtomach by the mouth. It was my direction, that ſhe ſhould not on any account eat or drink, or at leaſt not ſwallow, any part either of fluids or ſolids. But although I gave up this avenue, in order to allow the ſtomach to remain in a ſtate of quietude, unſolicited by ſtimulus of any kind, except its natural contents; yet I did not mean to leave the ſyſtem unſuſtained, but, on the contrary, to ſupport it by a mild nouriſhment, thrown in by the inteſtinal tube, and by the inhalents of the ſkin. The lower bowels were firſt emptied, by a clyſter of mutton broth: this being accompliſhed, a pint of new milk, juſt taken from the cow, with 20 drops of laudanum, was ordered to be injected as a clyſter, morning and evening:

and

and every endeavour to retain it was to be employed. Four ounces of bark were directed to be boiled in three gallons of ſkimmed milk; and the feet and legs, being firſt well rubbed with a warm cloth, were to be immerſed in this warm pediluvium for an hour, three or four times a day; an anodyne liniment was alſo applied to the region of the ſtomach. This comprehended the whole of the medical treatment ſhe was then ſubmitted to. This method was purſued ſteadfaſtly for three days with manifeſt advantage; the milk was entirely abſorbed morning and evening; her ſweats were conſiderably diminiſhed; ſhe had gained ſome ſtrength, and had been refreſhed with four hours ſleep the laſt night, without being haunted with thoſe terrifying dreams which had been the cauſe of ſo much diſtreſs. On the fourth day from her beginning upon this plan, ſhe enquired of the ſervant if there was any cold meat in the houſe; expreſſing a wiſh to have ſome brought to her. A plate full of cold boiled beef was immediately produced, which ſhe eat with great pleaſure, and drank with it a pint of ſmall beer. This

 never

never gave her the least annoyance. She continued from that time to take her food well, went her full time, and was brought to bed of a healthy child, which is now living. A light infusion of the bark, after this, was ordered for her, with a gentle aperient occasionally; and this was all that was wanting.

Every body conversant with the animal œconomy, knows how easily a habit is formed, and how much the system is influenced by it. The reader, however, shall determine for himself. The fact, as I have related it, is not less a fact, although I may have failed in the explanation of it.

ARTICLE XIV

On the Use of Cantharides in Dropsical Complaints, by SAM. FARR, M. D. *and* C. M S. *Curry Revel*; *in a letter to* J. C. LETTSOM, M. D. *&c.*

Read June 23, 1788.

THE discovery of new medicines seems to have occupied the principal attention of physicians of the present age; and as there

there are ſo many deſiderata ſtill required in practice, they are entitled to the thanks of the public for their exertions. At the ſame time, perhaps, the effects of ſome old medicines of eſtabliſhed reputation may not be undeſerving of regard. Amongſt theſe, it appears to me that Cantharides, though a college medicine, hath not been ſufficiently exhibited to know preciſely its effects in all the diſorders where it bids fair to be of ſervice.

It is certainly poſſeſſed of very powerful qualities, and is endued with a high degree of ſtimulus; but from improper uſe, or from fear of danger, it hath met with many enemies, both among thoſe who are fond of controverſy, and others who wiſh not to offend by doing too much, or encountering any particular difficulties. I would wiſh to induce a greater attention than hath been paid to it, in a diſorder generally condemned as incurable, eſpecially in its laſt ſtages. The dropſy, particularly that kind of it where water is ſuppoſed to be lodged in the thorax, hath eluded almoſt all the efforts of phyſic.

But the cantharides ſeems to be a medicine which is peculiarly adapted to this complaint; as it hath been frequently uſed in all ſorts of dropſies. It has a powerful effect in ſtimulating the lungs and the urinary paſſages. In the former, it ſeems in this diſorder to promote an abſorption in that juncture devoted to reſpiration; and in the latter it carries off that ſuperabundant quantity of water which abounds in the ſyſtem. A true diuretic hath hardly yet been diſcovered. Cantharides ſeems to be the moſt powerful of any other; and it hath this advantage, that it doth not debilitate either the parts upon which it produces its effect, or the conſtitution in general. It ſeems rather to act as a cordial and ſtrengthener. Its effects likewiſe, as a ſtimulus, if too violent, may be ſheathed by other medicines, which may co-operate with it in the general intention.

From theſe conſiderations I have been often induced to uſe it in dropſical caſes, eſpecially in old people, where I apprehended its ſtimulating effects would not be ſo active as in younger ſubjects; and I have generally found

found it attended with the moſt beneficial effects. If it hath not made a radical cure of the diſeaſe, it hath diſcharged the water, freed the reſpiration from its troubleſome dyſpnæa, and given a temporary relief to the whole body. But this diſeaſe is ſo apt to return, that little hopes can be derived from this or any other medicine to produce a permanent effect. A truce, however, is ſometimes of very great conſequence; and we may expect as much from this as any other remedy in effecting a perfect cure.

As I have not taken any minutes of particular caſes, I cannot give ſo accurate an account of the uſe I have made of the cantharides as I could wiſh. But two inſtances occur to my memory, in which a proper effect was produced; and in one of them a perfect cure was made. The firſt was of an old gentleman of near fourſcore years of age, who had been afflicted for many years with a humoural aſthma, attended with a ſciatica, which had reſiſted Bath water, and many other remedies. From want of exerciſe he fell into a dropſical complaint; and

when I ſaw him, his legs and thighs were much tumified, and his breathing was very ſhort and laborious; but there was no appearance of aſcites. He was ordered a draught, containing twenty drops of tinct. canthar. with a drachm of ſal. diuret. and ſome lac. ammon. to be taken every four or ſix hours, and I believe an occaſional paregoric. After a few days he began to make water freely, and continued in that manner till he was quite well of his dropſy, which was not in many weeks. His aſthmatic ſymptoms were likewiſe much relieved, and he has been now for five years free from any other complaint, but that and a little of the ſciatica, at times.

The other caſe was likewiſe of an old man about ſeventy years of age, a free liver, and a great drinker of cyder. He had a very troubleſome cough, his breathing was intolerably ſhort, his body ſwelled, with every appearance of aſcites, and his ſcrotum and penis enlarged to an amazing ſize; his legs too were ready to burſt; and he made very little water. He was ordered a draught, with

lac.

lac. ammon, a drachm of elix. paregor. and fifteen drops of tinct. canthar. to be taken every four hours, after the operation of a purge, compofed of a fcruple of jalap and ten grains of calomel. In a few days he perceived a fenfible relief; his water was gradually evacuated, fo that he was quite emptied in the courfe of about a week; and in another he was able to ride about and do his bufinefs. Unfortunately, however, in this cafe, whether from drinking or expofure to cold is not perfectly known, but his dropfy returned, yet not fo violently as before; tho' his breathing was fhorter, his cough more troublefome, and his appetite failed him. He had recourfe to the fame mode of cure, increafing the cantharides to 25 drops, and a fecond time received relief. This was about a month fince. This is the practice which I have frequently followed, and found moft likely to give relief in this difeafe. In younger and hearty fubjects I have experienced great fervice from ftrong purgatives, fuch as jalap, with tart. emet. &c. but the cantharides, as a diuretic, feems to be the fafeft we know, in cafes where fuch a medicine is wanted. I

have

have generally found it beſt to guard it with opium; which, in the form of elix. paregor. will aſſiſt it likewiſe in relieving the reſpiration. The doſe in which I have adminiſtered it is rather ſmall; but then I have frequently repeated it, and have found it generally ſufficient. Should a larger be required, it will be eaſy to increaſe it; but I think it ſafeſt, with all very active medicines, to begin with ſmall doſes, as an error in ſuch caſe is more eaſily corrected than when too great a quantity is adminiſtered.

ARTICLE XV.

Caſe of Tetanus treated by Electricity, by JOHN HUTCHISSON, M. D. *of* DUBLIN. *Communicated by* JAMES SIMS, M. D. *&c.*

Read January 29, 1779.

THE following narrative is the caſe of Miſs Margaret Caddel, a young woman about ſixteen years old, the daughter of Mr. Hugh

Hugh Caddel, jeweller, who having her jaws locked for above ſeven months, had their uſe reſtored by electricity.

In the month of November, 1774, Miſs Caddel was attacked with lumps in her throat. The ſymptoms were ſo alarming, that Dr. Arch. Hamilton was applied to for his aſſiſtance; who found it neceſſary to preſcribe bliſters, which in ſome meaſure relieved the patient: But about the latter end of that month, ſhe having gone to ſleep, without any other complaint than the above mentioned, on awaking in the morning, found her jaws contracted together, and ſo immoveably fixed, as to baffle every attempt to relieve her.

Thus ſhe continued until the beginning of March 1775, when, being in a very weak ſtate, and in much pain, juſt after her bliſters were dreſſed, her whole frame was convulſed, and the teeth of the lower jaw ſlipped up behind thoſe of the upper, which lapped over ſo entirely as to hide the lower teeth

teeth from view; which until then were only closed tooth against tooth.

In the beginning of June 1775, her parents were pressed by some of their friends (not medical) to try what effect electricity would have. Her father consulted some physical gentlemen, whether he might hope for success from that operation. Their answers were doubtful. But, not to leave any means untried for her relief, she was brought to the house of a Mr. Bond, in Castle-street, who hath a very good electrical machine, at which place I had the first opportunity of seeing her, or to know any thing of her case; and at that time her lower teeth appeared covered by the upper, as mentioned above.

In the week between the 26th of June and 2d of July, she was electrified on two different days with little effect, as the shocks were weak; the machine not working with much force, by the unfavourableness of the weather.

On Wednesday the 5th of July, she received two smart shocks, after which she

thought

thought her jaws were not quite ſo contracted; and on inſpection I could perceive part of the lower teeth.

The next morning I waited on Dr. Hamilton (with whom I have the pleaſure to be acquainted) and informed him of what I had obſerved; who adviſed us to proceed with our trials.

On that day, the 6th of July, in the afternoon, we gave her two ſhocks, the wire being placed at the articulation of the jaw on each ſide; the laſt of which was ſo powerful, as almoſt to make her faint. As I had my eye directed to her teeth, I perceived that they were ſeparated, and informed her: ſhe tried with her finger, and found a paſſage between. Her ſurpriſe and joy were ſo great at this diſcovery, that ſhe did not attend to her being able to uſe her jaw until that pleaſure had ſubſided; and in half an hour after, ſhe eat part of a ſmall cake, and drank part of a glaſs of wine.

On the ſucceeding day ſhe was viſited by Dr. Quin, who had ſeen her in the ſtate of her locked

locked jaw, and by Doctor Hamilton, who had attended her occafionally. They were both equally and agreeably furprifed at the unexpected fuccefs. Doctor Hamilton told me that fuch a cafe ought to be recorded; and, as I had attended and affifted in the operation, requefted I would collect the particulars, and convey them to you for the confideration of the Medical Society, of which you are one of the Secretaries. This I have done with the greater pleafure, as it may add fomething to medical knowledge:

And am, Sir,

your humble Servant,

JOHN HUTCHISSON.

No. 45, High-ftreet, Dublin,
18th Aug. 1778.

P. S. The above narrative would have been fent to you fooner, but was delayed until now, to fee whether Mifs Caddel would have any return. It is now above one month fince the operation, and fhe hath not had the leaft fymptom; but can chew almoft as well as ever, and is recovering her ftrength and appetite; both of which were much impaired.

To

To the Secretary of the Medical Society.

Sir,

Your favour of the 11th inftant, brought a requeft to be informed in what manner Mifs Caddel was nourifhed during the long period of the locked jaw. When I infpected my memorandum, I was much furprifed that I did not mention it in the account fent to your Society; but fuppofe it was that I did not choofe to be too tedious.

By the beft information I have been able to obtain, her fupport was with broth, jelly, and fuch other liquids, which fhe with much difficulty fucked in through the interftices of her teeth; and in the fame manner all the medicines were adminiftered to her. By this method the lamp of life was but juft preferved from going out. Her father told me, that more than once her weaknefs was fo great, that they apprehended her to be dying; but as the original malady decreafed, her abilities of fuction grew greater, and her defire of life made her exert herfelf to take the neceffaries

neceſſaries for its ſupport; ſo that when I firſt ſaw her ſhe was a good deal emaciated, but could walk and dreſs herſelf.

For ſome time after her being cured, ſhe did not eat any fleſh meat; being ſo long without taſting it, ſhe had not any deſire to do ſo; but by degrees ſhe hath brought herſelf to eat that, and every other food.

Another great advantage ſhe received from electricity was, that the menſes began to flow regularly, which were before intirely ſuppreſſed; which obſtruction it is apprehended was the cauſe of frequent ſore throats, which ſhe was before much ſubject to; and hath continued ever ſince in health, free from the leaſt ſymptoms of either complaints.

I eſteem myſelf happy in having an opportunity of communicating any thing uſeful to your Society; and ſhall, as often as I have any thing new, do myſelf the honour of imparting whatever may be either curious or intereſting.

JOHN HUTCHISSON.

ARTICLE XVI.

Of the Digitalis Purpurea, in Hydropic Diseases, by J. C. Lettsom, M. D. *&c.*

Read February 4, 1788.

DISSECTIONS of morbid cafes* fufficiently evince the impracticability of curing dropfies, arifing from certain caufes; as polypi or offifications in the large veffels, heart and lungs, or fcirrhofities formed in them; or in the liver and fpleen; fteatomatous tumors in different parts of the abdomen, compreffing the vena cava; a rupture or permanent obftruction of the lymphatics; fuppurations in the vifcera; a

* Compare Lieutaud, Hiftoria Anatomica Medica, vol. ii. p. 408. Morgagni de caufis et fedibus morborum, under Hydrops, et ventris tumor. Boneti Sepulch. Anat. tom. ii. p. 448, et paffim. Van Swieten de Hydrope, with the writings of Bianchi, Schenckius, De Haen, du Verney. Monro, Hewfon, Storck, Milman, &c.

 ftrumous

ſtrumous meſentery, and ſimilar fixed morbid affections; which, being incurable themſelves, render the diſeaſe they produce, rebellious to every effort of medicine.

But in order to aſcertain the virtues which a medicine may really poſſeſs, in an equal or ſuperior degree to any other previouſly known in the treatment of dropſies, trial ſhould be made in ſuch caſes as experience may have deemed remediable.

The following inſtances, which a priori appeared not to be incurable, are related in the order and ſucceſſion in which they occurred in practice, and copied verbatim from the notes which I committed to writing at the periods of attendance.

CASE I.

R. GILL, thirty years of age, applied to me about the beginning of September 1785. He had experienced uneaſineſs in the region of

of the ſtomach for about ſix months, with a gradual loſs of appetite; and when he did take any nouriſhment, it was ſucceeded with a ſenſe of oppreſſion and load in this viſcus, and a nauſea, ſometimes encreaſing to vomiting.

Under theſe circumſtances, without having ſuffered much loſs of fleſh, or conſiderably in ſtrength, he applied to me. He had a ſallow complexion, and a fulneſs of the abdomen, which induced me to conclude that he now had an incipient aſcites: he had no great degree of cough or dyſpnæa. I had reaſon to think he had indulged himſelf in the too free uſe of ſpirits, as well as of ſtrong malt liquors. On the 15th of September I preſcribed the following:

℞. *Olei Amygdal. dulc. uncias quatuor, Camphoræ, drachmas duas cum ſemiſſe, miſce, fiat Linimentum, quocum inungatur abdomen per horam quotidie.*

℞. *Fol. Digitalis Purpureæ, ſicc. ſemi-drachmam, coque ex Aquæ unc.* vji. *ad unc.* vj. *cola et colaturæ adde*

Tincturæ Stomach.
Syr. Balſamic. ſing. drachmas duas, miſce, cap. Cochleare ter de die gradatim augendo doſin, donec nauſea excitetur.

The doſe was tripled before it produced any ſenſible effect; when nauſea came on, and ſome ſlight vomiting at the end of four days; but as the latter ſubſided, this doſe was continued for the ſpace of ſix days longer, without having produced one ſalutary ſymptom. About the time the ſickneſs came on, he began to complain of giddineſs of the head, and confuſed viſion; objects appearing as if enveloped in a red blaze of fire. I was much ſurprized to find in this caſe, that, although no ſecretion was ſenſibly augmented, the fulneſs of the abdomen ſubſided, and the dropſy ſeemed totally removed; but during the uſe of the medicine, the patient's ſtrength ſunk in a degree never before experienced; and ſuch jactitation and reſtleſſneſs enſued, as compelled me to relinquiſh this vegetable, after it had been perſevered in for the ſpace of ten days.

The confuſion of the head and perverted viſion nevertheleſs continued, with the reſtleſſneſs and jactitation, which evinced great uneaſineſs in the ſyſtem: though the patient did not appear ſenſible of any particular pain. The proſtration of ſtrength could not be ſurmounted by the uſe of cordials; and the whole train of unpleaſant ſymptoms only ſubſided with his death, which happened a week after the digitalis purpurea was relinquiſhed.

CASE II.

EDWARD WYCHERLY, 48 years of age, whoſe chief employment is to attend at the river-ſide near the Cuſtom-houſe, firſt obſerved a want of appetite, and a diſpoſition to ſickneſs, in the ſpring of 1785; but he did not make any application for medical relief till the firſt of November, when he conſulted me. His legs were then moderately ſwelled. There was rather more fulneſs about the region of the liver than na-

tural, but no great ſoreneſs upon the touch, or from preſſure in that part. There appeared alſo a tenſion of the abdomen; but though I ſuſpected water, I could not aſcertain any fluctuation of it. I ſtrictly enquired into his mode of living, and found that he had occaſionally drank brandy and water, and ſometimes a glaſs of ſpirits unmixed, but not frequently; nor had he been in any other reſpect intemperate.

I preſcribed of calomel one grain every night for a week, and a decoction of taraxicum, with polychreſt ſalt, twice a day. Theſe he continued for a week, when I ordered a decoction of the digitalis purpurea three times a day, gradually encreaſing the doſe till a nauſea enſued, and then diminiſhing it; ſo as juſt to admit of retention on the ſtomach.

On the 21ſt of November I ſaw him again. His urine had not been ſenſibly encreaſed, though his legs appeared much leſs ſwelled, which gave him encouragement to perſevere in the uſe of the medicine; but on examin-

ing

ing the abdomen, I difcovered an obvious fluctuation of the contained fluid, and the face began to wear a difeafed fallow look; though he ftill continued to follow his ufual employments.

He was, however, fo prejudiced in favour of this vegetable, that he feemed defirous of continuing it longer, for he had now taken it only twelve days; he obferved, however, that fince he took it he found a dimnefs and diminution of his fight, with a flight vertigo. I ordered the decoction twice a day, and two of the following pills to be taken every night.

℞. *Pulv. Fol. Digital. Purp.* ℈ß.
—— *Rad. Columbæ* ʒß.
Confect. Cardiacæ, q. s. f. Pilulæ xx.

This plan he continued till the end of November; when I found a confiderable tumefcence of the abdomen, and a more obvious fluctuation of water in its cavity. The naufea and occafional vomiting from the digitalis had weakened him fo much, that I did not wifh to try it any longer.

The dimneſs of ſight and vertigo continued about fourteen days after leaving off this vegetable. The recovery was very gradual, as well as the vertigo; but there is no proſpect of obviating the fatal tendency of the aſcites.

P. S. Two months after writing the above, I heard of his death.

CASE III.

JAMES OGDEN, aged about 54 years, had been a publican, in which, though he never was intoxicated, there is reaſon to think he drank freely. He enjoyed, however, good health, and had adopted a new line of buſineſs for ſome time before he applied to me. Ever ſince the commencement of the year 1785, he had perceived a diminution of appetite and bodily ſtrength; the urine became high-coloured, and leſſened in quantity, and the belly enlarged. When I ſaw him on the third of October, there was an evident aſcites, though no præternatural enlargement

largement of the liver was perceptible; and he was ftill able to attend to his concerns.

I then ordered him to take the decoction of the digitalis, in the form prefcribed in the preceding cafe.

On the 9th, no alteration had enfued; when I repeated the decoction, and ordered the following pills.

℞. *Digitalis purpur. pulv.* ℈j.
Philon. Londin. ℈ij. *m. fiat Pilul.* xviij. *cap.* i. *omn. nocte et mane.*

On the 12th a confiderable degree of vomiting enfued, and the unfavourable fymptoms were augmented; he was much weaker, without any diminution of the abdomen, or encreafed quantity of urine. He complained of giddinefs and confufion of the head, and was reduced to the neceffity of keeping his bed for feveral days; by the ufe, however, of a decoction of bark, he gradually acquired fufficient ftrength to fit up a few hours of the day. But this relief was not permanent; and he funk under the debility about fifteen days after taking the digitalis

CASE

CASE IV

MARY GUEST, about 40 years of age, of great temperance, but of aſſiduity in the buſineſs of her houſe, which was often continued ſo as greatly to fatigue her, obſerved in the autumn of 1785 a gradual encreaſe of bulk, and particularly a ſwelling of the lower extremities, with a diminution of urine; though the menſes continued as in her uſual health.

On the 7th of November ſhe conſulted me; and I then preſcribed an infuſion of quaſſia with ſquills.

On the 14th ſhe had paſſed a larger proportion of urine; and the general anaſarca was diminiſhed.

On the 19th, when I ſaw her, no further advantage had been gained; which induced me to exhibit the digitalis purpurea, thus:

℞ *Decoct. Digitalis purp.* ℥iſs.
Tinct. Stomach.
Syr. Balſamic. a ʒj. *f. Hauſt. bis in die ſumendus.*

It

It moſtly produced ſome little nauſea, and leſſed the inclination for food; but it did not in the leaſt perceptibly encreaſe the urine. She indeed complained of being weaker, and more bloated; and inſtead of the digitalis, I gave larger doſes of ſquills, with bark to ſtrengthen the habit; which plan gradually reſtored her health.

CASE V.

W. WEBB, ſixty years of age, applied to me on the 20th of February 1786, on account of ſome difficulty of breathing, and a ſlight anaſarca of the legs. He had been liable during many preceding winters to this kind of dyſpnæa, and had generally been relieved by loſing a little blood. This year the ſame treatment did not produce any beneficial effect: the pulſe was not irregular, but weak. He could lie down with eaſe in any poſition of the body; though upon exerciſe the breathing was ſhort and oppreſſed, without much catarrh.

I ordered

I ordered ſquills in ſubſtance, and the acetum ſcilliticum as freely as his ſtomach w uld bear; but as he tried theſe without any mitigation of his complaints, the following were exhibited on the 27th of February.

℞. *Pulv. Doveri* ℨß.
—— *Rhabarb.*
—— *Scillar. ſiccar. a* ℈ß.
Syr. e Meconio, q. s. f. pilul. xij. *cap.* iij. *omni nocte.*

℞. *Fol. Digital. Purpur.* ℨß.
Coque ex Aquæ ℥viij. *ad* ℥vj, *colaturæ, et adde*
Tinct. Stomach ℥ß.
Syr. ex Althæa ℨij. *m. cap. cochlear.* ij. *ter per diem.*

This doſe excited a little nauſea; but not to ſuch a degree as to prevent its continuance for eight days. At the end of this time he became ſo weak, that I was neceſſitated to interdict its further exhibition. The head became ſo giddy as to give a ſenſe of drunkenneſs; the urine was not augmented; and the anaſarca and debility were encreaſed.

The

The Peruvian bark, with ſquills, was now introduced, and continued to the end of March, at which time this was written; and though no obvious encreaſe of urine ſupervened, the ſtrength improved, the tumeſcence of the legs ſomewhat diminiſhed, and the breathing was leſs difficult, ſo as to give hopes of a gradual recovery.

CASE VI.

J. POYNER, aged about 46 years, applied to me on account of an anaſarca, which had become general, attended with ſuch a degree of dyſpnæa, as prevented his lying down in bed for ſome weeks before my attendance. The diſeaſe, however, had been gradually coming on for ſeveral months before it arrived at ſuch an extent, as to induce him to requeſt my attendance.

I could find no cauſe of intemperance to which the complaint could be charged. He had formerly known better days, and had lately encountered encreaſing difficulties; but was nevertheleſs ſuperior to a ſtate of want.

With

With the anafarca the urine was diminifhed in quantity, and heightened in colour. He had a troublefome cough; and particularly upon attempting a reclined pofition. I did not obferve an afcites: he had a pretty free expectoration with his cough.

On the 8th of December 1785, I firft prefcribed for him a mixture, with lac ammoniacum, acetum fcilliticum, and the volatile alcali, to take in the day-time.

At bed-time he took pills compounded of powdered fquills, Dover's powder, and Rufus's pill.

December 13. Having found no relief from the firft remedies, befides continuing the pills, the mixture was repeated, with a decoction of Seneka root, inftead of the lac ammoniacum.

Dec. 19. No amendment yet refulting from the ufe of the medicines, I ordered the patient to take an infufion of tobacco three times a day, with the mixture at intermediate times.

Jan

Jan. 1, 1786. Soon after the uſe of the nicotiana, he appeared freer in his breath, and imagined that the quantity of urine was encreaſed; but the flattering appearances again ſubſided. I continued, however, the medicine occaſionally, as the ſtomach would bear it, till January 10, when I ordered the uſual decoction of the fox-glove, but rather in a diminiſhed doſe, to be taken every eight hours; encreaſing it as the ſtomach would admit.

For the firſt week he certainly paſſed much more water, and gradually diminiſhed in the anaſarcous ſwelling.

I was extremely happy at the proſpect I now had of ſeeing one ſucceſsful caſe from the uſe of this vegetable; and though he complained of great vertigo, and almoſt a total loſs of viſion, with immenſe proſtration of ſtrength, I encouraged him to perſevere: but on the ſecond week he loſt ground; the urine did not increaſe, but the anaſarca, the debility and vertigo augmented; and I was reluctantly compelled to relinquiſh the medicine on the 28th of February, when I ordered

a decoction

a decoction of bark, with acetum ſcilliticum, and ſalt of wormwood: beſides which, he took every night pills made of rhubarb, ſoap, and ſquills.

Towards the end of April he acquired a tolerable ſtate of health, and has ſince attended to his uſual concerns; but it was full two months after leaving off the digitalis before his viſion clearly returned, or the vertigo ceaſed.

About the beginning of January, agreeable to the obſervation under that month, when the ſymptoms were relieved at the firſt taking of the digitalis, I was ſo hopeful of its efficacy, that I tried this vegetable in three other caſes about the ſame period; but met with chagrin and diſappointment, although the inſtances were ſuch as might have admitted of ſuccour.

P. S. Though my viſits were diſcontinued, I have ſince learnt, that the patient Poynder died ſuddenly in bed, in September 1786; and I imagine that he then laboured under the hydrops pectoris.

CASE

CASE VII.

THO. WRIGHT, aged about 46, consulted me on the 5th of September 1787; when I collected the following information.

He has lived all his life in ſuch a ſtate of temperance, as rarely to have been intoxicated; but he has been accuſtomed to drink brandy and water, or gin and water, as a frequent liquor; from which, however, no inconvenience reſulted till about two years ago, when his appetite began to fail, and an uneaſy fulneſs about the region of the ſtomach enſued. Early in the year 1786, the urine appeared to be diminiſhed, and a ſlight anaſarcous tumeſcence of the whole body took place; and in the ſummer a jaundice, with an encreaſed anaſarca. Dr. Brockleſby was conſulted, and preſcribed various remedies, which were ſo far efficacious as to remove the jaundice in a great meaſure; and punctures in the legs had leſſened the anaſarca. I believe he conſulted ſome other phyſicians; but without experiencing further relief.

At the period of my viſit, accompanied by Dr. Andree, a member of the Medical Society, I obſerved the following ſtate of the patient's diſeaſe.

His whole body was conſiderably anaſarcous, his complexion had a ſlight yellow tinge, and the eyes indicated the remains or the return of the jaundice; the ſmall lobe of the liver might be felt, ſomewhat enlarged and indurated; a fluctuation of water in the abdomen was evident; the breathing was often laborious: ſome reſt he enjoyed at night, and he could recline upon a low pillow; the urine was ſmall in quantity, though not very high coloured. With theſe ſymptoms he had never totally confined himſelf from going abroad, either in a carriage, or a little on foot, His alvine evacuations were natural, his tongue clean, and his ſpirits not depreſſed.

Preceding phyſicians had judiciouſly adminiſtered neutral ſalts, ſquills, and other diuretics. Once calomel was attempted, but a ſingle grain affected his mouth.

He

He had lately drank gin and water, as a medicine of his own, from an idea that old hock, and other wines recommended by the faculty, disagreed with him, by turning sour on his stomach. I requested him to lessen his gin, and in lieu of water, to dilute it with an infusion of the juniper shrub. As he had taken various diuretic medicines, I was resolved to try the digitalis purpurea in the smallest doses at first, to avoid exciting a nausea; to which he was already liable.

℞. *Pulv. Fol. Digitalis Purpur. sicc.* ℈ss.
Spec. Aromat. ℈j.
Conf. Cardiac. q. s. fiant Pilul. xiv. *cap. unam ter per diem.*

Sept. 12. There had been a considerable encrease of urine, which the Doctor informed me had occasionally occurred before, without any permanent benefit. He appeared to have lost two inches in the dimensions of his waist; and he said he felt stronger. He was able to walk about the room. The pills produced a nausea, but no vomiting; and they were continued. I now found that he had frequently drank brandy

and water, and even indulged in it ſince my laſt viſit; which cuſtom I totally diſcountenanced.

Sept. 19. The urine is again diminiſhed. Although on the 16th the digitalis purpurea was encreaſed, the appetite is fallen off. I ordered the following:

℞. *Extract. Cicutæ, gr.* iiſs.
Pulv. Digital. purp.
—— *Scillar. ſicc.* ā *gr.* j. *f. Pilul. ter in die ſumunda,*

At the end of September I was informed that the patient continued much in the ſituation he had done for the laſt twelve months; and probably, from the remaining ſtrength of a vigorous conſtitution, he may ſurvive many months longer.

P. S. Though I never attended after the above report, which I copied from my notes, I heard that he died about four months after I left him.

CASE

CASE VIII.

E. G. of Lombard-ſtreet, of a temperate courſe of life, and of a general good ſtate of health, began about her 45th year to experience ſome irregularity in the menſes, and a diſpoſition to obeſity. This had been encreaſed by confinement, in conſequence of an accident; but ſhe afterwards enjoyed health, though with leſs exerciſe.

About the year 1787, ſhe perceived an encreaſed fulneſs of the abdomen: for which ſhe conſulted her apothecary, W. French, who gave chiefly ſcillitic medicines, and occaſional laxatives of calomel, with the cathartic extract. She made more urine, and by meaſurement fell two inches in the circumference of the waiſt. This relief was temporary; and ſhe acquired her former magnitude, when I was conſulted about the middle of July.

This lady enjoyed a florid complexion, plump without being groſs in habit; but the

abdomen was confiderably enlarged, and a fluctuation of water was juft perceptible. There was no evident enlargement about the region of the liver; nor could that vifcus be perceived by the touch from the obefity and partial anafarca. The menfes had appeared lately, though in diminifhed quantity; the urine was high coloured, and but little was difcharged.

As calomel had been lately given, I did not repeat it, but ordered the fquills, both in fubftance and in the form of acetum, with falt of wormwood, as liberally as the ftomach would bear; and occafionally adminiftered the cathartic extract as a purgative.

This plan was purfued, with little variation till the 10th of Auguft, without any obvious improvement. This induced me to relinquifh the fquills, and fubftitute the digitalis purpurea; which could now be procured without rifk of deception.

To avoid exciting naufea, half a grain only was prefcribed to be taken three times a day

in a pill, with as much cathartic extract as would procure two ſtools each day; and the pills were waſhed down with a ſaline draught, with directions to encreaſe the digitalis purpurea gradually, as far as the ſtomach would bear without vomiting.

Auguſt 18. The patient had now arrived to the quantity of four grains and an half each day of the digitalis dried, without ſuffering more nauſea than ſhe had done with the ſquills; and indeed the appetite had never been very bad. But no encreaſe of urine, or diminution of ſize, had reſulted from the medicine. As I thought I had experienced more diuretic effects from the combinations of theſe two vegetables than from either ſingly, I continued the pills; and added to each draught ten drops of the acetum ſcilliticum.

Aug. 23. She complained much of ſickneſs; no encreaſe of urine; feels a ſenſe of encreaſed debility. At preſent the menſes are in conſiderable quantity: a diſcharge which has of late attended at frequent and

uncertain periods. The complexion is clear, and maintains an healthy look; but the belly augments, and the appetite fails. As the medicines produce no good effect, they are now omitted, and a reſtringent draught ſubſtituted twice a day.

Aug. 26. The menſes are a little abated, and the patient's appetite improved; the urine is not encreaſed in quantity.

Sept. 2. The menſes are totally ſtopt, and the ſtrength a little improved, as well as the appetite; and I now adviſed her to refrain from medicine.

P. S. In the Midſummer of 1788, this lady was tapped, and died about one month after the operation.

I have communicated the preceding caſes, treated with the digitalis purpurea, becauſe they were ſuch, as has been already obſerved, as afforded a proſpect of ſucceſsful iſſue;

iſſue; though the reſult did not confirm it. The apothecaries who attended the patients, particularly J. Parkinſon of Hoxton Square, who viſited the Caſe No. I. and J. Steele of Tower Hill, who attended that of No. II. and who were equally anxious with myſelf to aſcertain the real digitalis, took particular care to examine this vegetable, and ſuperintend its effects.

I have given it alſo to hydropic patients, much further advanced in the ſymptoms of danger uſually accompanying this diſeaſe, or whoſe irregular living had afforded little or no proſpect of relief; but I have omitted the relation of them, as the failure of ſucceſs cannot afford any material objection to a medicine, wherein no other could be adminiſtered with any probability of advantage. The preceding caſes, however, with as many other ſimilar ones, and equally unſucceſsful, which have fallen under my care, have induced me to doubt the ſalutary powers of this beautiful vegetable.

As

As I gave it in the manner prefcribed by Dr. Withering, I am at a lofs to explain the different refults of our experiments. In the cafes wherein I have tried it, little or no advantage was procured, while his trials were almoft as uniformly fuccefsful; and many of them appear to have been much more unpromifing. The accuracy of his obfervations, the candour with which they are publifhed, and above all, the known refpectability of his character, place him above the reach of fufpicion. I have not only had the correfpondence of Dr. Withering himfelf, but other refpectable phyficians in the country have favoured me with accounts of its fuccefs, in inftances where no improper bias whatever could influence their relations. Future experiment therefore muft decide from what unknown caufes fuch different effects have arifen.

There are certainly difeafes of the fame origin and nature, which require different treatment in different fituations and periods. The practice adopted by Dr. Sydenham in the rheumatifm, would not fuit the confti-

tutions

tutions of the preſent citizens of London; and the treatment of the ſame, recommended by Dr. Cullen in Edinburgh, would be injurious to the patients of this metropolis. How far a more robuſt habit of the people in the country may render the digitalis purpurea a more ſalutary remedy in the dropſy than it proves to the inhabitants of London, I cannot aſcertain; but no liberal mind would impeach the accuracy and fidelity of thoſe writers who have ſpoken ſo highly of this vegetable. A conſiderable argument in its favour has been deduced from the teſtimonies of old writers. But does not this militate againſt it? For had this medicine been generally ſucceſsful formerly, it never would have been relinquiſhed, unleſs ſome more ſucceſsful remedy had ſuperſeded it; but this has not been the caſe, as no medicine has been found to cure dropſies in general, it may be naturally inferred that the digitalis could not have fallen into diſuſe from its virtues, but from its inefficacy, if not from its real injuries. My doubts have not been haſtily adopted. The digitalis was recommended to me for trial about ten years ago; and

and its failure in two inftances difcouraged me from profecuting further experiment at that time.

I have lately converfed with many practitioners in London upon the fubject; and they have very generally met with difappointment from this remedy. A phyfician of diftinguifhed eminence informs me, that, from the fuccefsful exhibition of it in a cafe of dropfy, about 22 years ago, he was induced to give it repeatedly to the patients of the hofpital to which he was then phyfician, but without one inftance of fuccefs; and though he continues high in his profeffion, the late encomiums have never drawn him to repeat his experiments. Some eminent practitioners, however, have confirmed the favourable relations of Dr. Darwin and Dr. Withering, and affured me of their having experienced the moft falutary effects in hydropic affections; particularly in the hydrops pectoris and general anafarca.

In the exhibition of the digitalis purpurea, the firft effect I have obferved, is render-

ing

ing the pulſe ſlower than in the natural ſtate of the patient: thus, perſons whoſe uſual ſtandard may be 70, have had the pulſations reduced to 56, or even leſs, in a minute. This has occurred within 24 hours after the uſe of this vegetable: but if the ſame doſe be continued, in a day or two the pulſe acquires its uſual quickneſs, or even exceeds it; but at the ſame time it generally becomes depreſſed, and a languor is diffuſed over the whole ſyſtem: the extremities, the hands particularly, acquire a moiſt clamminеſs, and feel cold to the touch. If the doſe be encreaſed till nauſea or ſickneſs is excited, the ſtrength of the patient is ſtill more weakened; and the ſlowneſs of the pulſe returns, as at the firſt exhibition of the medicine. The ſickneſs reſembles ſea-ſickneſs, accompanied with a confuſed aching and heavineſs of the head. The patient at this period remarks that he perceives flaſhes of fire frequently paſs acroſs his eyes, and ſometimes balls of fire in the room. An encreaſe of the doſe after this produces vomiting, and ſometimes purging alſo. He complains of increaſed head-ach, or rather of confuſion

confuſion and giddineſs. Inſtead of flaſhes of light, almoſt all objects he views appear brilliant; and his friends who viſit him ſeem to be ſurrounded with a blaze of fire. His memory is imperfect; and upon attempting to walk, he reels and ſtaggers like a perſon intoxicated. The doſe that brings on theſe effects, gradually produce confuſed viſion, and at length almoſt total blindneſs; which I have known to continue in ſome inſtances upwards of a month after the medicine had been omitted. During this time he complains in a particular manner of a throbbing pain in the balls of the eyes, and a ſenſe of fulneſs and enlargement of them, as if the globes had become too big for the ſockets, and were grown out of their natural ſcite. In two caſes that I heard of, the limbs, particularly the lower extremities, were ſeized with tremors; and, from ſome cauſe or other, both theſe patients died ſuddenly, in a manner moſt reſembling apoplexy.

The ſymptoms I have deſcribed do not happen to every patient, even where large

doſes

doſes of the digitalis have been adminiſtered: the ſenſe of objects appearing in a blaze of light, occurred but in one inſtance; few, however, eſcape ſome degree of the other ſymptoms; and all experience an alarming proſtration of ſtrength. The vital powers are ſometimes ſo ſuddenly and exceſſively ſunk, that life ſeems almoſt extinguiſhed, and the ſlow feeble pulſe is but juſt perceptible; at the ſame time ſuch horrors of mind and jactitation of body enſue, as render the patient under the preſſure of theſe painful ſenſations even ſolicitous of death. In the firſt caſe I was a witneſs of this ſtate of agitation; and although the patient neither vomited, nor ſuffered a diarrhæa, nor paſſed more urine than uſual, yet the dropſical ſwelling of the abdomen ſubſided; the debility, however, which ſucceeded, could never be overcome. Other inſtances have likewiſe occurred to me, where the aſcites has ſubſided after uſing this medicine, without any ſenſible excretion whatever. In general, however, it acts as a powerful diuretic; and in certain ſtates of the dropſy, where the ſtrength is not greatly impaired,

has

has proved ſucceſsful, ſo far at leaſt as I can collect from ſeveral reſpectable practitioners. In my own experience I have not been ſo happy.

Under a knowledge of the probability of ſuch alarming ſymptoms occaſionally occurring after the exhibition of this active vegetable, the neceſſity of giving it cautiouſly muſt be apparent, as well as of carefully encreaſing the doſe of it. Probably the diuretic qualities of it cannot be depended on, till a quantity ſufficient to produce nauſea is introduced; and that quantity is apt to excite unpleaſing ſymptoms.

To aſſiſt in obviating the depreſſion which it induces on the powers of life, I have uſually added ſome tonic medicine; as the bark, quaſſia, chalybeates, or myrrh.

It is by carefully comparing facts that a juſt criterion of the powers of remedies can be acquired. I have candidly related thoſe which came under my obſervation; and I ſubmit them to the deciſions of time and future experience.

SINCE

SINCE the firſt edition of theſe Memoirs appeared, a ſufficient period has elapſed to afford a more accurate knowledge of the medicinal effects of the digitalis purpurea. The cautions contained in the preceding account have been of uſe, in guarding againſt temerity, on one hand, and encouraging, on the other, prudent experiment. That this medicine is a powerful diuretic, was ſuggeſted, and future enquiry has confirmed, as well as its dangerous ſedative powers; but under the direction of medical ſkill, I conſider it as one of the moſt powerful diuretics in medicine, and efficacious remedies in aſcites and dropſical affections, as far as diuretics can act as curative remedies.

Without entering here into the various cauſes of dropſies, it is often found that hepatic and glandular affections may be traced as ſources of hydropic diſeaſes: probably they are even much more frequently ſo than are ſuſpected. It has hence been an occaſional practice with me, to unite deobſtru-

ents with the digitalis, in a formula ſimilar to the following.

℞. *Hydrargyri purific.* ℈ſs.
Suc. cicutæ ſpiſſat. ℈j. *Tere ſimul donec evaneſcant globuli.*
Extr. cacumin. geniſtæ, ℈j.
Pulv. digitalis purpur. gran. iv.
Olni carei eſſent. q. s. f. in pil. xij. *capt.* j. *ter in die.*

I imagine, to an adult, three grains a day of the digitalis would rarely affect the head; but as individuals have ſometimes ſuffered much from this quantity, I would recommend the proportion above preſcribed to commence with, eſpecially in weak conſtitutions; and afterwards to encreaſe the doſe to even five or ſix grains a day,i n divided doſes.

I uſually order a draught of bark, quaſſia, or colombo, after each doſe of the pills, to counteract the debilitating power of the digitalis; and to each draught ten grains of prepared kali; which ſeems to augment the diuretic effect of the digitalis. If with the hydropic there are ſuperadded catarrhal affections, I have ſubſtituted a ſolution of myrrh inſtead of the bark, and ſometimes joined with it

it ferrum vitriolatum and kali, in the manner recommended by the late Dr. Griffiths; with a ſuperabundance of the kali. This preparation is nauſeous to moſt people, without ſome grateful vehicle; and the moſt grateful I have ever obſerved, is an infuſion of liquorice root, which at the ſame time cannot be an improper vehicle for patients under catarrh.

With the pills I have juſt deſcribed, I have tried the ſquill; which has ſometimes appeared to augment their diuretic influence. We cannot, however, long continue the hydrargyrus without exciting a ptyaliſm, which the practitioner will naturally be aware of; and prior to the appearance of ſuch a ſymptom, omit, at leaſt for a while, the junction of mercury.

I cannot diſmiſs this ſubject, without mentioning that I have found the digitalis a very important remedy in the hydrops pectoris; but under this diſeaſe I have uſed with benefit the addition of Dover's Powder, or ſoap pill. So powerful has the di-

gitalis been, prudently managed, as to effectually remove the aſcites, after the operation of tapping has been repeatedly tried; and I could adduce ſuch inſtances, wherein no ſymptom of diſeaſe has returned for the ſpace of years. I conſider it, therefore, under ſkilful attention, a valuable addition to our Materia Medica.

ARTICLE XVII.

Cynanche Pharyngea, or Defect of Deglutition from a Straitening of the Oeſophagus, by JAMES JOHNSTONE, *of Worceſter*, M. D. *and* C. M. S. &c. *In a Letter to* J. C. LETTSOM, M. D. &c.

Read June 4, 1787.

LORD BACON, in the work "De Augmentis Scientiarum," incites phyſicians to attempt to leſſen the number of fatal diſeaſes by new methods. Impediments to the paſſage of food into the ſtomach from a ſtricture, a thickening, or ſcirrhus of the pharynx,

rynx, or in ſome part of the œſophagus, is ſo frequent, and ſo very juſtly accounted a dangerous and fatal diſeaſe, that I hope any reaſonable endeavour to obviate its danger will not be unacceptable.

Every one muſt have had experience that this diſeaſe has reſiſted the moſt powerful remedies. Van Swieten, in his comment on § 797 of Boerhaave, gives a catalogue of medicines, applied in this caſe by himſelf and other phyſicians; and all in vain. The tartarus tartariſatus and regeneratus ; Starkey's celebrated penetrating ſoap, compoſed of oil of turpentine and ſalt of tartar ; crude ſal ammoniac, and its volatile ſpirit ſaturated with diſtilled vinegar, applied both outwardly and inwardly with ſufficient perſeverance, either did no good, or only gave a ſhort and temporary reſpite from a diſeaſe which ſoon returned as bad as before.

Mercurial unctions, and mercurial plaſters, with the gums, applied to the neck ; ſtrong purges, and even ſalivation itſelf, were unſucceſsful. Emollient decoctions, oily and

lubricating medicines, were often ſerviceable in rendering the paſſage more open, ſo long as any paſſage remained; but did not cure effectually and radically. The recent roots of the black hellebore, beat to the conſiſtence of a cataplaſm with vinegar of ſquills, and bryony root pounded with crude ſal ammoniac, and applied to the neck, failed. A probe with ſponge fixed on whalebone, and introduced into the œſophagus to force open the ſtricture, was ineffectual, and manifeſtly hurtful, by irritating that ſenſible part, and encreaſing the pain and ſwelling in it.

I knew a murder committed (I hope the faculty will pardon the expreſſion) by an attempt to open a paſſage into the ſtomach by this kind of forcible entry.

I have found lucibrating oils, burnt ſponge, and mercurial unction fail. I fear when the œſophagus is much thickened, or when a ſcirrhus blocks up the paſſage, medicine will be of little ſervice; yet in this unhappy ſituation a method may be adopted which promiſes ſome good, and which entitles it to a

preference

preference to medicines of an irritating and ſtimulating nature. All the good that is to be done, will be effected by relaxing or gently dilating the ſtricture. For this laſt purpoſe, bougies of a proper ſize might be tried, as propoſed very judiciouſly by Mr. Wathen, and endured without pain, or retching to vomit; and eſpecially if followed with any advantage, they ought to be continued, and from time to time repeated; if otherwiſe, certainly laid aſide. The advantage is moſt likely to be ſecured by giving boluſes of butter, and other oily ſubſtances. I certainly have ſeen ſome palliative good done by oily linctuſſes. The food ought always to be milky, demulcent, nutrient, ſoft, and liquid. Though I have hardly ever ſeen mercurial unctions uſeful, I remember curing a perſon by giving corroſive ſublimate diſſolved in the ſpirituous tincture of Peruvian bark, in a manner ſimilar to the celebrated ſolution of Van Swieten. A ſpongy relaxed appearance in the uvula and glands of the throat led me to adminiſter this medicine; which I by no means think likely to be generally uſeful.

Opium and extractum cicutæ bid fair, in my opinion, to be more generally uſeful in this diſeaſe than any other medicines. They will operate powerfully in removing the ſpaſmodic ſtricture; which ſometimes is the ſole cauſe, and more or leſs attends every other cauſe of this diſeaſe. I remember a young woman, ſtill alive, who, without any inflammation, ſwelling, or apparent cauſe in the throat, for ſeveral days laboured under this diſeaſe of the œſophagus, ſo that no ſolid or liquid food paſſed into the ſtomach. She was cured by taking fifteen drops of thebaic tincture on ſugar every four hours. She took ſix doſes in this manner before the ſtricture yielded to the medicine; but has remained well and free from the diſorder ever ſince the year 1780. I judged her diſeaſe proceeded from ſpaſm; but think it highly probable that if it had not been removed by the medicines, a thickening of the œſophagus would ſoon have enſued, and the diſeaſe would have become permanent and incurable.

In 1782 I was conſulted for —— Robinſon, a tenant of W. Childe, Eſq. of Kinlet, and

and who uſed to accompany him in the ſports of the chace. He had for a conſiderable time laboured under a diſeaſe reputed incurable; which had prevented all food from paſſing into the ſtomach, from an obſtruction below the pharynx. I ordered a grain of extract. thebaic. with a few grains of extract of hemlock to be taken in the form of pills two or three times in the day, but to hold them in the mouth till diſſolved, and to ſwallow the ſolution with the ſaliva; and to avoid every attempt to take any thing elſe which might bring on ſtraining, and force the medicine back again. By adhering to this method a few days, the obſtruction was removed; and the power of ſwallowing ſolid as well as liquid food was perfectly reſtored. The diſeaſe, however, returned, and was fatal to him about three years afterwards. I imputed this to the habitual indulgence of drinking ſpirits and drams; and it is ſomewhat remarkable, that he, after this relapſe, neither uſed the method nor the aſſiſtance of him who had adminiſtered relief, till it was viſibly too late to be uſeful.

I have

I have applied the ſame method and medicines ſince that time in ſeveral inſtances; and from the ſucceſs, I venture to recommend the plan in preference to any hitherto in general uſe for this formidable malady.

When the preſſure of ſwelled glands is found to be the obſtruction to deglutition, which I remember to have happened in ſome caſes of bronchocele; and which may be ſuſpected if the patient has knots in the glands of the neck, or any other marks of ſcrophula; in ſuch circumſtances, the deobſtruent medicines, which are ſpecifically proper in ſcrophulous diſeaſes, are indicated. In order to give ſuch medicines efficacy, it is neceſſary to apply them topically to the abſorbing orifices of the lymphatic veſſels which enter into the obſtructed glands, and again emerge from them in their courſe to the lacteal duct, where it diſembogues its contents into the ſubclavian vein. This is a point of great importance; for being thus applied, medicines will very probably go in full power and efficacy into the obſtructed glands.

Medicines

Medicines which are conveyed into the body by the lacteal veſſels have no ſuch advantage. They mix with the blood, and, circulating with it, have only a remote chance of ever arriving at the ſeat of the obſtructions intended to be removed. In order to arrive at theſe glands, they muſt be thrown out in ſecretion, and again abſorbed by the lymphatic veſſels which are to convey the lymph to the glands in queſtion, and along with that lymph theſe ſpecific medicines: a piece of luck, if duly conſidered, hardly to be expected.

It is therefore certain, that the holding the medicines directed for the bronchocele under the tongue till gradually diſſolved, is in the higheſt degree a rational practice; and indeed found ſuch by experience, long before this reaſon was thought of, as being neceſſary to their efficacy.

I preſcribed for a lady of a ſcrophulous habit, and who has had repeated returns of an obſtruction in the paſſage of food along the œſophagus, the following bolus:

℞. *Spong.*

℞. *Spong. ust. Flor. Martial.* ā ℈i.
Conserv. Rosar. q. s. f. Pil. sublingualis.

which she was ordered to hold under her tongue till dissolved, and to swallow the solution. This she did for a fortnight or three weeks at bed-time every night, and has been constantly cured by it.

I am certain the same mode of administration will add greatly to the power and efficacy of any other medicines which may be thought proper in such circumstances. But early application to medicine is in this, as in all other dangerous diseases, of the utmost consequence to its success.

ARTICLE

ARTICLE XVIII.

Cafes of unufual Affections of the Tongue, by Mr. THOMAS HAYES*, *Surgeon, &c. at Hampftead, in a Letter to* J. C. LETTSOM, M. D. *&c. and by him communicated to the Medical Society; with a further Account of a fimilar Affection.*

Read June 16, 1788.

CASE I.

AT feven o'clock in the morning, on the fecond of January 1781, I was defired to vifit J. Wembridges of North End, near this town, a very fober, honeft, labouring man. As I was not very well, my affiftant went to him, and found him in bed, and received the following account from him and his wife, viz. That he had fupped the night before on bread and cheefe, and with it drank

* This ingenious young gentleman, author of a well written Effay on Confumptions, died the fame night on which this Paper was read to the Society.

a pint

a pint of porter, and went to bed perfectly well. About three o'clock in the morning he awoke, and looked at his watch to ſee if it was time to go to his work; but finding it too early, ſlept again till between five and ſix. At this time nothing ailed him; he then got up, and went to his work acroſs Hampſtead Heath, as uſual. In the way he thought his tongue ſeemed to ſwell, as it really did, and continued to do ſo till he could hardly be underſtood when he ſpoke. My aſſiſtant bled him pretty largely, and gave him an ounce and a half of ſal catharticus amarus diſſolved in ſome liquid. About eleven o'clock I ſaw him myſelf, and found the above account confirmed. His tongue was amazingly ſwelled, the face exceedingly florid, and a large proportion of blood ſeemed derived to the whole head. He complained of an inſufferable pain in his back and loins, that he could with difficulty ſit up while I repeated the bleeding; which I immediately performed, to the amount of ſixteen ounces. The pain in the back was ſomewhat abated by the bleeding, but the tongue was ſo much ſwelled, as greatly to impede his

breathing;

breathing; and it was with the greateſt difficulty that he ſwallowed any thing. Warm injections and fumigations were applied frequently to the tongue; emollient clyſters were exhibited; the feet were put into warm water; a nitrous ſaline mixture, with tartar emetic, &c. was given as often as poſſible. His pulſe beat 130 in the minute, and was full, hard, and ſtrong, which determined me in the evening to repeat the bleeding; and I took ten ounces more blood from him. Although he got ſtools from the firſt ſalts, I repeated them on the morning of the third; which operated very well. The antimonial ſaline mixture had ſweated him a little; but the difficulty which he had to breathe, prevented him lying down and encouraging it. I ordered fumigations of vinegar and red port; the clyſters and pediluvium to be repeated; but there was not the leaſt abatement of the ſize of the tongue; and it now began to look of a dark black colour, or rather as if it had been broiled over a ſmoky fire. Indeed I expected it would mortify. In a caſe ſo ſingular, I confeſs I knew not what to do; and indeed had I known, there

there was very great difficulty to get any thing down his throat. I ordered the continuance of the antimonials, and ſent him a large bliſter to put round the whole throat, with powdered camphor ſpread over it. This was put on for a little time, but had not drawn at all; when ſome of the neighbours fetched Mr. Goodwin, an ingenious ſurgeon of this town, to ſee him, at a time when I was from home. He recommended the bliſter to be taken off, and a poultice of bread and milk to be applied to the throat, and a large bliſter between the ſhoulders. When I came home in the evening, the above had been done, but not with the leaſt benefit. On the morning of the fourth I ſaw him early, much the ſame as the preceding night. The bliſter had drawn, and the poultices been kept on, and frequently renewed warm. I ordered four grains of James's powder every third hour; ſaw him in the middle of the day much the ſame. At night I was ſent for in great haſte, and was told he was dying: indeed he had every appearance of being ſo, except that his pulſe was ſtill quick, full, and hard. The James's

powder

powder had ſweated him profuſely, but without any evident benefit. I ventured to bleed him again in this ſtate, and ordered the poultice to be taken off, and the bliſter to be put round the throat, as I had before directed. As ſoon as the bliſter began to draw, and to diſcharge any lymph, the tongue gradually leſſened; he breathed freer, the tongue became white and moiſt, and by the next evening he was out of all danger; and a couple of purges completed his cure. It may not be improper to remark, that he had not the leaſt ſwelling of the gums, palate, or throat, nor any complaint in the head; nor did his blood ſhew any large portion of buff; and the ſerum and craſſamentum were proportionable.

CASE II.

Mrs. ANN STEENTON, a linen-draper and ſhopkeeper in Hampſtead, aged 81, rather of a ſcorbutic habit of body, but remarkably healthy for her time of life, and a very honeſt intelligent woman, applied to me on the

8th of November 1780, for ſomething to relieve a troubleſome itching that came on her hands, and other parts of her body, particularly at night, after ſhe became warm in bed. Finding her well in other reſpects, I adviſed her to let nature take her own courſe, and to uſe no medicine to remove it. On November the 12th, in the morning, I was ſent for in haſte, and received the following relation from my patient, which was alſo confirmed by her niece and ſervant: That ſhe had continued to be troubled with the itching, after being warm in bed, from the time I firſt ſaw her till the preceding night; and when ſhe ſcratched herſelf, which ſhe was unable to forbear from doing, that a number of lumps, or weals, would ariſe upon the ſkin; the itching hindered her getting her uſual ſleep at night, but ſubſided in the morning, and left a degree of roughneſs on the ſkin. On the night of the 12th, the itching raged with uncommon violence all over the body, arms, &c.; but one of the weals, or bumps as ſhe called them, was particularly troubleſome to her on one of her arms; which ſhe endeavoured to abate by

by putting her tongue to it, thinking the ſaliva would allay the heat and itching of it. But ſhe was much ſurprized to find a ſmall ſwelling and protuberance ariſe upon the tongue, attended with ſome ſenſe of pain almoſt immediately; but as this was not ſo proportionably painful as the itching was troubleſome, ſhe loſt the idea of it for the preſent, and tried to compoſe herſelf to reſt, as ſhe had had but little ſleep for ſeveral nights before. Soon after ſhe fell aſleep, ſhe awoke ſcratching her arm, and not thinking of the former effect on her tongue, applied it immediately as before, which almoſt inſtantly became ſwelled to a great degree, attended with a numby ſenſation, not unlike to a ſlight paralytic affection; which prevented her being underſtood when ſhe ſpoke. This continued for many hours, and alarmed the family very much. As I was not at home when firſt ſent for, I did not arrive ſoon enough to ſee the tongue very much ſwelled; but there was ſome tenderneſs and tenſion left upon it, and it was in a degree numbed; and ſhe ſaid the diſorder affected the root of her tongue. I

 found

found no other complaint but the effera on the ſkin, the body ſufficiently open, and the pulſe as uſual. I ordered an antimonial laxative mixture, of which a doſe was to be taken every four hours, and an anodyne draught at bed-time.

The mixture cauſed a ſlight diaphoreſis on the ſkin, and the draught procured reſt at night. She ſuffered very little afterwards from the itching on the ſkin. On the 14th a diarrhæa came on, which proved critical, and continued for ſeveral days, which I moderated with a few grains of rhubarb and confectio Damocratis; and my worthy old patient loſt her troubleſome itching, and remains hearty and well.

I am, Sir,

your moſt obedient humble ſervant,

THO. HAYES.

Hampſtead, Nov. 28, 1786.

To

To the Medical Society of London.

GENTLEMEN,

SOON after I received the preceding hiſtories, the following *account of a ſingular ſwelling of the tongue* was preſented to me by a gentleman equally diſtinguiſhed for his great practical knowledge, and the liberal communication of it by important publications. I know well the ſubject whoſe caſe is deſcribed; the accuracy of which is unqueſtionable.

JOHN COAKLEY LETTSOM.

London, Jan. 17, 1787.

An Account of a ſingular Swelling of the Tongue.

The texture of her frame ſo finely wrought,
That one might almoſt ſay her body thought.

DONNE.

THE ſubject of this diſorder is a lady, who has a mind endued with great ſenſibilities, and a body equally delicate and irritable. Whenever

Whenever the former is impreſſed by any diſtreſsful ideas, the latter is in conſequence of them ſure to be affected by palpitations, ſpaſms, fevers, and other nervous complaints. Theſe latter as conſtantly make a tranſition to the inteſtinal tube, and there produce a ſhort but painful diarrhæa; by which, as by a perfect criſis, all theſe complaints are terminated.

It is now more than nine years ſince the final period of menſtruation; nor was it long after its ceſſation before ſhe was ſeized with occaſional ſwellings of her tongue. It was once ſo exceedingly thickened as to depreſs the lower jaw to the greateſt extent, forcing itſelf between and beyond the molares on each ſide, the inciſores full an inch before the lips, and backwards ſo far as to compreſs the epiglottis; by which the reſpiration was nearly ſtopped. The attack now referred to, which was the worſt of all ſhe ever had, happened in the night. At this very alarming height of the diſorder, deprived of ſpeech, and incapable of taking any thing, ſhe was inſtantly bled in the arm, as the only

means

means that could be uſed. From this awful moment the ſwelling began to abate, and the tongue gradually ſunk down to its natural ſize. The returns of this ſwelling are uncertain as to time, and apparently unconnected with whatever conſtitutes a periodical complaint. It ſometimes comes on once or twice in a week; at others, not oftener in two or three months. It has the ſame variations as to its extent and magnitude; but the manner in which it begins, the time of its increaſe and procedure to an height, as alſo that of its declenſion, is more uniform and regular.

It is always preceded and attended by a torpid head-ach, ſleepineſs, a kind of anxious indolence, and incapacity of exertion; with a pulſe more ſlow and weak than natural.

This ſwelling always begins near the tip, or on one ſide of the tongue; where it may be taken up between the thumb and finger, and felt diſtinctly by them, as if it was a gravel-ſtone, or ſmall barley-corn included within the ſubſtance of the tongue. It is,

 however,

however, perceived by the patient much ſooner than it can thus be diſtinguiſhed by others.

This little ſolid particle may be felt, and even ſeen to encreaſe with great rapidity, ſo as to equal the hardneſs, and even exceed the ſize of a nutmeg, within the ſpace of an hour; and ſo on, in a ſimilar proportion, till it arrives at its height, which has been from four to ſix or eight hours, according to the degree of magnitude it arrives at. It is generally twice as long in ſubſiding as in its encreaſe; and conſequently from its commencement to its termination, may occupy the ſpace from twelve to twenty-four hours. Although the tongue has in general been the ſeat of this tumefaction, it has occaſionally affected the lips, ſwelling as hard as a ſtone, and to an immoderate ſize. It has more than once occupied the tonſil and velum pendulum palati of one ſide, as alſo the poſterior part of the fauces, and top of the œſophagus, ſo as to hinder deglutition during its continuance. Theſe were accompanied by the ſame internal ſymptoms, but with leſs ſuffering than when it was in the tongue.

Theſe

These ſwellings ſtill continue to make their appearance chiefly on the tongue; but not ſo frequently, or to ſo great a degree as for the firſt three or four years of their commencement.

As to the immediate cauſes of this diſorder, they appear to be the ſame as thoſe which produced the diarrhæa, mentioned in the beginning of the narrative; for when the tongue ſwells, there is then no diarrhæa; and vice verſa.

The firſt phyſician conſulted on this occaſion, was the late Dr. Fothergill; who preſcribed an equal atmoſphere, frequent bleedings, a fluid and vegetable diet, excluding animal juices and all fermented liquors; but the patient being brought extremely low by this treatment, and neither the ſwelling nor the diarrhæa becoming leſs frequent during that proceſs, it was relinquiſhed.

Doctor Hinckley was ſo firmly perſuaded that a mild mercurial courſe would produce a ſalutary change in the conſtitution, that it

was

was complied with by the patient; but this was followed by a diarrhæa, which was put an end to with the greateſt difficulty, and no ſmall hazard of life.

The late Doctor Hunter, the learned and excellent Doctors Heberden and Wathen, all declared themſelves unacquainted with the nature of this diſeaſe: the laſt of theſe, however, together with Doctors Allen and Paul, thought it might be a ſpecies of the arthritica vaga; but their unanimous advice was to leave it wholly to nature, or at leaſt to uſe only ſuch methods as might give ſtrength to the conſtitution.

About five years ago ſhe was ſeized with a kind of univerſal gout or rheumatiſm, attended with extreme pain, and the loſs of motion in the right arm; all which went off in the ſpace of three or four months, leaving her exceedingly low and weak, for which ſhe was adviſed to drink, and to bathe in the hot ſprings of Bath in Somerſetſhire; but theſe were ſo injurious, that they were left off after a few trials. On her return to town, ſhe had a ſevere

a ſevere fit of the gout in her knee; and ſometime after, another in her ancle and great toe. Theſe paroxyſms were deemed by ſome who had been conſulted, a confirmation that the diſorder in the tongue was of the ſame ſpecies; but this I ſhall not pretend to determine. The return of that complaint, however, either at the time, or in the intervals between thoſe paroxyſms, were neither more nor leſs frequent, better or worſe, than before theſe ſeizures.

This ſwelling, when in the tongue, except in the dreadful attack above-mentioned, always kept ſtrictly to that ſide of it where it firſt began; being exactly limited by its rhaphe. It was the ſame when it ſeized the lips, and the tonſils, &c. and probably ſo in the fauces and œſophagus; though this laſt could not be ſo exactly determined. All the phyſicians whoſe names I have mentioned, not only gave their own perſonal attendance to this caſe, but were ſo obliging as to inveſtigate the writings of many of the ancient as well as modern pathologiſts, without finding a ſingle precedent of this kind of diſorder.

This

This caſe was attended to, and preſcribed for, by two juſtly eminent and excellent phyſicians; but as their preſcriptions were of a potent nature, and exhibited without any clear or direct indication, they proved very injurious, and nearly coſt the patient her life.

If then men of this high character were culpable in preſcribing medicines and methods for the cure of a diſorder, the nature of which they were totally unacquainted with, and the event of which was ſo pernicious; it is my ardent wiſh, and the main deſign in this narrative, that thoſe who intend to enter, as well as thoſe who now tread the path of Medical Science, may avoid preſcribing potent medicines in every caſe where they are not plainly indicated; at the ſame time they endeavour to imitate theſe excellent men and phyſicians in the general tenor of their practice, and conduct in their profeſſion.

ARTICLE

ARTICLE XIX.

Obſervations on the Palſy, *by* WILLIAM FALCONER, M. D. F. R. S. *and* C. M. S. *&c.*

Read March 26, 1787.

THE Palſy is well known to be the loſs of motion or of ſenſation, or of both, in any part of the body. It generally happens that both of theſe are affected at the ſame time, and I believe it always takes place in ſome degree; but we may often obſerve, that the proportion which the loſs of motion bears to that of ſenſation, is very different in different perſons; ſome recovering the ſenſation very ſoon, and almoſt, if not altogether, in a perfect manner, whilſt the power of motion continues very languid; others again quickly recover ſtrength, although the faculty of ſenſation remains very imperfect. In general, if the paralytic limb retains its natural warmth, the feeling is tolerably acute;

acute; and if by any means the natural warmth can be reſtored to a cold palſied limb, the ſenſe of feeling commonly returns in a good meaſure with the warmth. But this does not hold univerſally, nor is the ſenſation thus reſtored, though often ſufficiently acute, always of an accurate kind. I have known perſons, whoſe palſied limbs were exquiſitely ſenſible to the impreſſions; *e. g.* of a fly creeping on the ſkin, who could with difficulty diſtinguiſh a piece of ſilk from woollen, by handling it. The general account ſuch perſons give of their feelings is, that it appears to them as if a piece of thick leather was interpoſed between their ſkin and every object they touch *. Frequently

* I have ſeen two inſtances wherein the ſenſations were ſo far depraved by a paralytic affection, as to exhibit to the mind oppoſite ſenſations to what they had formerly done; cold and preſſure conjoined in the ſame body, exhibited the ſenſation of heat. A gentleman, the day after having had a paralytic attack, of no very violent kind, called in the morning, whilſt in bed, for a cup of water to drink. Upon his graſping it to bring it to his mouth, he exclaimed, that his ſervant had brought him water nearly boiling hot. He was, however, prevailed on to taſte it; and it then gave to his tongue the uſual

quently a pricking feeling is complained of in palſied limbs, reſembling that which accompanies the temporary palſy that is brought on by preſſure on any nerve, by ſitting or lying long in any particular poſture; and I think I have generally obſerved ſuch caſes admitted of relief. The muſcles of a paralytic limb are often diminiſhed, and of a looſe flabby conſiſtence, obvious to the touch on handling them; and I believe this takes place very generally in paralytic affections of long ſtanding. The degree of diminution is, however, in no proportion to the duration or the violence of the diſorder.

uſual ſenſation of cold. Cold water gave a ſenſation of cold alſo to his hands, when they were immerſed in it; but a cold body preſſed hard againſt his hands, felt hot. When he roſe from his bed, and placed his feet on the floor, he could ſcarcely believe the floor was not ready to burſt into flames, till he recollected the ſenſation relating to the water he had juſt before experienced. The preſſure, however, of a warm body, gave no peculiar or uncommon ſenſation. His ſhoes felt hot on firſt putting them on: but when reduced to the temperature of his feet, felt as uſual. This extraordinary depravation of ſenſation was not accompanied with the ſlighteſt injury to the underſtanding, or any alteration of the feeling in any other reſpect.

I have

I have ſeen an inſtance when the limb was nowiſe affected in this reſpect; although the paralytic affection was very complete, and of long ſtanding. Palſies are generally defined to be diſorders attended with diminution of the power of motion, or ſenſation, or both; but a caſe once occurred to me wherein theſe faculties, if at all, were ſo ſlightly affected, as not to be diſcoverable; notwithſtanding which, I think the caſe might juſtly be denominated a paralytic one. A young lady of about three years and a half old, of a remarkable roſy complexion, was obſerved to turn pale ſuddenly on one cheek, whilſt the other retained its colour. As her ſtrength and ſpirits ſeemed not to be affected, this was little regarded at the inſtant; but undreſſing the child in the evening, the whole of the body on the ſame ſide with the cheek affected, was found to be turned of a pallid colour. In a few weeks the leg and thigh of the ſame ſide began to waſte, but the ſtrength did not appear to be diminiſhed; and no reaſon offered itſelf to induce an opinion that the feeling was altered. The uſe of the waters externally, ſoon reſtored the limb to its natural ſizeand colour.

The

The flexor mufcles in palfies have been often faid not to be weakened fo much in proportion as the extenfors; and this is faid to be inftanced in the hands and fingers, which, when in a paralytic ftate, generally appear to be fomewhat in a ftate of contraction. But I have obferved, that in fuch cafes it was equally difficult to make a farther contraction, and to bring the fingers into clofe contact with the palm of the hand, as it was to extend them altogether. I therefore apprehend this ftate of the mufcles to be only that in which they naturally are when not acted upon by any effort of the will, and not in any pofitive ftate of contraction. It frequently happens that the arm is not greatly weakened in point of ftrength, and is of ability to fuftain or lift a confiderable weight, when it is utterly incapable of performing any of thofe operations that require any nicety or dexterity: writing for inftance.

The underftanding is fometimes, but not always, affected in palfies. Lofs of memory and childifh imbecilities, feem to be the

points to which mental injuries of this kind moſtly tend; but I have ſeen inſtances wherein the mental faculties were violently depraved by it. This was the caſe at times; and during the intervals, a childiſh imbecility took place.

In caſes where the underſtanding is not obviouſly altered, it is very common for a great change to take place in the temper. Great impatience and anxiety about the event are very common; and the ſufferers uſually flatter themſelves at times with hopes of a complete recovery, and are angry with thoſe who attend them for not acquieſcing in the ſame opinion. Whilſt theſe ſentiments prevail, remedies are eagerly ſought after and tried; but if, as can ſcarcely be expected, no great benefit appears in a ſhort ſpace of time, all confidence and hope is loſt, and a train of deſpairing melancholy thoughts is apt to ſucceed; and remedies, which might by long uſe have proved beneficial, are renounced before any reaſonable trial could be had.

If

If an accurate enquiry is not made, we may often think the mental faculties of paralytic perſons to be uninjured, when in reality they have ſuffered a very ſevere ſhock. It is not uncommon to ſee people in this condition diſcourſing in a manner perfectly rational, and with the memory ſeemingly unimpaired; but ſuch perſons are at the ſame time unable to read a few lines in any printed book, and ſtill more frequently to write a ſentence in a letter, or even their own name. It is proper to remark, that paralytic perſons frequently retain their own ideas tolerably clear, when they are unable to recollect the words which are proper to expreſs them; hence they are apt to miſtake the names of objects, and to ſubſtitute wrong words, while their own ideas are perfectly conſiſtent. It however often happens, that in the ſevereſt paralytic attacks, the faculties of the mind remain uninjured till the departure of life.

The greater part by far of the paralytic complaints that I have ſeen, have been hemiplegias, or palſies of half the body in a longitudinal direction; and I am apt to ſuſpect

that they are all ſo at their firſt attack. It is common enough to ſee paralytic patients after ſome time, recovered of the affection in ſeveral parts of the body, and having no ſenſible mark of it remaining, except lameneſs of the leg or arm, or heſitation of the ſpeech; but if we examine theſe caſes cloſely, we ſhall almoſt always find that at the firſt attack the diſorder took the form of an hemiplegia; and that at that time the marks of it were ſufficiently diſtinguiſhable.

The tranſverſe hemiplegia, or palſy of half the body in a horizontal direction, I never ſaw; nor do I believe that an affection of this kind, that may properly be called a palſy, exiſts, at leaſt in this country. It is common enough to ſee the lower extremities reduced to a ſtate of great weakneſs and inſenſibility, by rheumatiſm and other complaints; but though this, when in its worſt ſtage, puts on the appearance of palſy, it is in reality a very different diſorder from a true idiopathic palſy. All thoſe of the rheumatic kind, recited by Mr. Sauvages, ſeem to me to be ſymptomatic. The hemiplegia tranſverſa, or palſy of one arm, and the leg

on

on the other ſide, I never ſaw; and, though mentioned as common by ſome writers, I have much doubt concerning it. The nicety with which the exact half of the body is affected in hemiplegias, is worthy of remark. The face, noſe, tongue, and lips, are divided with the minuteſt accuracy; and this, I believe, never varies. In paralytic attacks that are not ſo violent as immediately to threaten life, we almoſt conſtantly find a degree of recovery after the ſtroke, which generally laſts for three or four days, and ſeems a kind of re-action of the ſyſtem; or a ſort of natural effort to reſiſt or throw off the complaint. This ſort of recovery is generally aſcribed to the remedies uſed, which may no doubt often help to promote it; but I have ſeen it take place nearly in the ſame manner where no remedies, or at leaſt none to which any good effects could be aſcribed, had been uſed. After this temporary effort, the condition of the patient is generally ſtationary, until a freſh attack. Every paralytic attack I ever ſaw (and I think it to be eſſential to the diſorder) was ſudden, and I believe inſtantaneous. When thought

to be gradual, it consists, I apprehend, of a series of slight attacks.

Palsies were formerly thought to be complaints peculiar in a good measure to old age; but the following account will shew that all ages are subject to them, and that the period of life between the ages of thirty and forty years, which we should least of all have expected, is full as liable to it as any other.

Out of 100 paralytic cases, extracted from the register of the Bath hospital, in the order of their admission, thirteen were under 20, and several under 10 years of age; twelve between 20 and 30; thirty-six between 30 and 40; twenty-one between 40 and 50; and eighteen between 50 and 70. The above were all spontaneous palsies; and almost all of them evident hemiplegias. Particular constitutions and habits of body have been said to pre-dispose to palsies. Plethoric persons, with a short neck and florid complexion, great appetite, and indolent habit, are undoubtedly pre-disposed by these circumstances

to

to that kind of palſy that ſucceeds apoplexy, and which probably ariſes, in ſome manner not thoroughly explained, from repletion; but with reſpect to other habits, I know of none that are exempt, on the one hand; and on the other, I know of none more ſubject to palſy than another. Palſy, in plethoric habits, is generally preceded by ſymptoms of coma and apoplexy; but in ſpare habits it often comes on without any previous ſymptoms of that kind. I have found, from repeated obſervations, that nothing is more uncertain than the ſigns which are ſuppoſed to foretel paralytic attacks. Vertigo, temporary numbneſs of different parts of the body, confuſion of ideas, convulſive ſtartings, and involuntary muſcular contractions, together with great agitation and dejection of ſpirits, ſeem to partake of the nature of palſy very ſtrongly; yet I have ſeen many perſons who laboured under theſe complaints, and who I could not help fearing would ſuffer an attack of the paralytic kind, but who never were ſo attacked. One gentleman in particular, who was ſubject to ſymptoms of this kind, in as great a degree as any I have

 known,

known, and who, in conſequence thereof, was predicted above 20 years ago to die ſoon of a paralytic ſtroke, is now alive in good health, and in full poſſeſſion of all his faculties, at the age of above 80 years. From the preſence of ſuch ſymptoms, I have apprehended ſuch an attack in fourteen perſons; of whom one only, who, unfortunately for me, was an intimate friend, died in the manner expected. Paralytic patients are frequently obſerved to be coſtive; and ſometimes I have ſeen this to a great degree, and obviouſly a part of the diſorder; but, though commonly occurring, coſtiveneſs can ſcarcely be called a general ſymptom; and when moderate, ſeems to be more owing to the ſedentary life ſuch perſons lead, than to the diſorder. The appetite of paralytic perſons is generally pretty great; and often more conſiderable than it was accuſtomed to be when in health. I was for ſome time of opinion that this was owing to a weakneſs of the ſenſitive faculties of the ſtomach, by which it is enabled to judge when it is ſatisfied; but I am now inclined to think this opinion erroneous, as I have generally found that

that no complaint has been made of the quantity ſo taken in feeling heavy or oppreſſive, or of being not eaſily digeſted. On the contrary, this proceſs appears to go on regularly and well. Nay, I have* ſeveral times obſerved the digeſtion conſiderably more regular, and the ſtomach leſs flatulent, and apparently leſs diſordered after a paralytic ſtroke had taken place, than before. This circumſtance ſeems to contradict an opinion which has been entertained by many perſons, that the cauſe of palſies generally originates in the primæ viæ †.

Paralytic people are ſometimes much inclined to ſleepineſs; but this, though common, is not general. I have often ſeen them

* Since the above was written, a caſe has been ſent to the Bath hoſpital, of a perſon who had for a conſiderable time been ſubject to vertigo, confuſion of ideas, ſpaſmodic contractions of the limbs, lowneſs of ſpirits, and many other nervous ſymptoms; all of which diſappeared on the patient's having a paralytic ſeizure, which affected one ſide of the body, but did not take away its uſe.

† I have generally found that the appetite when it had been large, and begins to fail, indicates the termination of life to be at hand.

much

much diſtreſſed for want of repoſe, and obliged to have recourſe to opiates for that purpoſe.

Convulſive twitchings of the muſcles (generally of ſome particular, and often ſmall muſcle) are very common with paralytic patients. Theſe convulſive efforts are often attended with great pain of the parts affected. They frequently occur during a courſe of the Bath waters; and are regarded, when not very violent, rather as a favourable ſymptom. Pains in paralytic limbs ſometimes happen, independent of convulſion; and ſometimes theſe are very ſevere, and reſembling thoſe of the rheumatic kind. They, however, are found in people who, before the paralytic ſeizure, were never liable to pains of the limbs of any kind.

Paralytic limbs are ſubject to ſwell immediately on the attack. This ſwelling appears uniform throughout the part, and is moſtly of a ſoft and flabby kind; and ſeldom, I believe, at firſt at leaſt, anaſarcous. It ſometimes goes off quite in a few days. If it continues long, the lower extremities are apt to become

become œdematous. I have obſerved large fat people more inclined to ſwellings of their limbs, after paralytic attacks, than ſuch as are of a thin ſpare habit. Paralytic limbs are ſometimes ſubject to perſpire largely; and are often, in ſuch caſes, conſtantly in a moiſt ſtate. This is generally, and I believe with reaſon, eſteemed a bad ſign; eſpecially as external applications of the warm kind have a tendency to increaſe this diſcharge. Sometimes the paralytic limb ſeems to have its perſpiration obſtructed, and the ſkin in a parched dry ſtate. This ſymptom generally yields to external applications. Young people afflicted with this complaint, are more apt to have the perſpiration in paralytic limbs increaſed, than thoſe in a more advanced age.

It ſhould ſeem probable, though it is by no means to be accounted as proved, that men are more ſubject to the idiopathic palſy than women. Out of 64 patients in the Bath hoſpital, for palſies without any aſſignable cauſe, that were admitted in the year 1776, 45 were men, and 19 women. The proviſion of beds for women-patients in the Bath hoſpital, is little more than half of thoſe provided

for

for men; yet the womens apartments are ſeldom full, and often not much more than half; and thoſe of the men moſt commonly full, and often with 30 or 40 patients waiting for admiſſion. It is obſerved, I think by Boerhaave, that thoſe paralytic attacks are the moſt dangerous, in which the muſcles about the mouth or face are affected; but this I rather think was inferred from an idea that the diſorder would be more hazardous, as the parts neareſt the brain, or ſeat of life, were affected, than from any experimental obſervation. The muſcles of the face, neck, or throat, are affected more or leſs in almoſt every hemiplegia at its firſt attack; though this affection frequently goes off entirely in a ſhort time. But I have not found ſuch caſes, even where the affection of the face was more permanent, to be attended with more immediate danger to life, or to reſiſt the power of remedies more obſtinately, than other caſes wherein thoſe parts were not affected.

Paralytic diſorders are thought to be more common in cold weather; but this I apprehend is true only of old people. Young and middle aged perſons appear to be equally liable

liable to it at all ſeaſons of the year. Plethoric perſons, and ſuch as feed high, are generally moſt liable to theſe attacks a few hours after dinner, ſeemingly about the time of the abſorption of the food and its paſſing into the circulation; but perſons of a ſpare habit are oftener attacked after long faſting, as in the morning, eſpecially if they eat nothing at ſupper. I do not find any particular poſture or poſition of the body, in general, diſpoſes to attacks of this kind, more than another. I have ſeen people who have been attacked ſtanding up, ſitting, lying in bed, walking, and riding; nor do I believe the attack was influenced by any of theſe circumſtances. I ſhould, however, obſerve, that I have often ſeen people of a nervous conſtitution, who were ſeized with vertigo on viewing objects in an oblique poſition with their eye.

On the Cure of the Palſy. The parts of the body that have been affected with palſy, if they recover at all, do it very irregularly. The parts that lie neareſt the brain do not recover the ſooneſt. The voice, when that is affected in an hemiplegia, generally recovers firſt, next the leg, then the arm, and

laſt

laſt of all frequently the muſcles of the face. Remedies for the palſy may be conſidered as external and internal. This diviſion, though improper for a regular treatiſe, may be allowed in a collection of obſervations only. With regard to the uſe of external applications, we ſhould conſider that there are in moſt palſies two diſtinct ſymptoms: one the loſs of heat and feeling, which I believe always accompany one another; and the other the diminution or loſs of ſtrength. Theſe, though generally combined, are not, however, entirely dependent on the ſame cauſe; as they may be loſt and recovered, independent, in a good meaſure, of one another. It appears alſo that ſome kinds of external remedies, of the ſtimulant kind, are more particularly adapted to reſtore the warmth and feeling of the part than others. External heat is of this kind; the moſt convenient application of which is by means of a hot bath, or ſtream of water let fall on the part. This I apprehend ſhould always be tried previous to the application of the more acrid ſtimulants; as bliſters, &c. If ſtimulants of the latter kind be applied before the feeling be reſtored in ſome meaſure, it has been ob-

ſerved

ſerved they were of little ſervice; being often very languid in their operation, and apt to cauſe very troubleſome and ill-conditioned ſores. If uſed, on the contrary, after the bath has been ſometime tried, bliſters have often an excellent effect in exciting the languid motion of the part, and ſeldom cauſe any trouble in healing.

In order to be able to uſe the waters externally, at the ſame time with the application of other ſtimulants, I have often tried embrocations of equal parts of tincture of cantharides with the volatile aromatic ſpirit, or ſpirit of ſal ammoniac; but I find the ſimple tincture of cantharides full as convenient as either of the others. If the embrocation be made with the ſpirit of ſal ammon. with quick lime, it proves cauſtic in a good degree immediately on its application. If made with the ſimple ſpirit, or with the ſp. vol. aromatic. it ſeldom, except in very tender ſkins, ſhews any effect at all.

The tincture of cantharides uſed alone, produces a ſlight ſtimulus, and a little redneſs of the ſkin, without raiſing a bliſter, or making

making a ſore. As an active remedy, however, I think the application of a bliſter preferable. Flour of muſtard-ſeed rubbed on the ſkin, I have often ſeen adviſed; but never ſaw any effect at all from it. Rubbing with a fleſh-bruſh is generally recommended in palſies; but I think with leſs advantage than might be expected, though I do not deny it to be rather of ſervice; but I am confident I have ſeen better effects from long continued gentle rubbing with the hand.

It is a frequent practice to lap up paralytic limbs in many folds of flannel, and to keep the perſon ſo affected very warm in every reſpect; but this is, I am ſatisfied, a very noxious practice, as it generally induces a tendency to ſweat on the paralytic part, which always weakens it, and is with difficulty, even by an oppoſite method, reſtrained. Paralytic limbs ſhould no doubt be kept ſo warm as to feel eaſy and pleaſant in reſpect of temperature; but a conſtant application of heat not only produces the inconvenience mentioned above, but deſtroys the effect of temporary warm applications; whoſe efficacy depends in a good meaſure on the

the ſhock they produce, by the difference of their temperature to that to which the part is uſually accuſtomed.

Even external ſtimuli, that depend on temperature, are found to ſucceed better when the heat is moderate, than when it is raiſed as high as the feeling can well ſupport. Some years ago, when the hot bath, which is allotted to the hoſpital patients, was repairing, the ſick perſons belonging to that charity bathed for two years or more at the croſs bath, which is only 94 degrees; whereas the other is uſually, I ſuppoſe, at leaſt 105. It was agreed by the medical faculty that the paralytic patients, during that time, recovered faſter and more completely than when they bathed in the hotter water. Some of the ancient writers ſeem to have been of the ſame opinion, when they adviſe the moderate warmth of the ſkin of an animal newly killed, as an application to a paralytic limb. Internal remedies for palſies are very numerous; which is a great preſumption, were there no other, that they are moſtly ineffectual. I have often tried ſome of the moſt ſtimulating ſubſtances that can be given with

ſafety; as the ſiliquoſe plants, as muſtard, horſeradiſh, in ſtrong tincture and infuſion; the aromatic and heating ſpices, as cloves, and the Guinea pepper: from the laſt of which only I have obſerved ſome advantage to be gained. Emetics are frequently adminiſtered in palſies; indeed ſo often as to make a part of the common routine of practice. When tried ſoon after the ſeizure as an evacuant, they are often of great ſervice; and indeed when the conſtitution is ſtrong they are often uſeful, by the ſhock and agitation they produce, independent of the evacuation they occaſion. But in weak, irritable habits, they are, I am convinced, often very injurious; ſtraining and fatiguing the patient, and increaſing the debility, and thereby aggravating all the bad ſymptoms.

Purgative medicines, eſpecially ſuch as are called of the warm kind, are frequently exhibited in palſies, and where evacuation is required, frequently with ſome good effect; but if often repeated, tend only to weaken the body, and hurt the appetite and digeſtion, and of courſe encreaſe the diſorder. When it has been neceſſary to give purgative medicines,

medicines, I have generally found it ſerviceable, if the evacuation has been at all conſiderable, to give a warm opiate at night after it; which ſurprizingly abates the tremor, lowneſs, and other nervous ſymptoms, ſo apt to accrue in ſuch circumſtances. Moſt of the medical writers and practitioners object to the uſe of opium in palſy, on account of the effects it produces being ſo ſimilar to thoſe of the diſeaſe we wiſh to cure. But I am convinced from repeated experience, that however appearances may be againſt the uſe of opium, that in this inſtance appearances are fallacious; and that opium, when indicated by pain, ſpaſm, uneaſineſs, or other troubleſome ſymptoms, may occaſionally be employed with as much ſafety in palſy as any other complaint. The Turks, who injure their healths ſo much by opium, do not more frequently die of palſies than other people.

Several mineral poiſons are ſaid to have the power of producing palſy; but I never ſaw a true palſy, or hemiplegia, that was owing to ſuch cauſes. There ſeems to be a ſpecific difference in the kind of palſy produced

by each of the mineral poiſons. Thus lead affects the ſtrength of the muſcles that ſupport the wriſts, and cauſes the muſcles that form the ball of the thumb, and frequently the deltoid muſcles of the ſhoulders, to waſte and diminiſh; but ſeldom produces any tremor, dimneſs of ſight, or affection of one ſide more than the other.

Copper I have ſeen cauſe ſtiffneſs and rigidity, together with a paralytic inability to open or contract the muſcles of the fingers; but not that flabby texture of the muſcles that lead produces.

Antimony I have ſeen produce ſuch a weakneſs of the ſtomach, as to cauſe every thing to be rejected from it; and I have alſo ſeen it produce a palſy in the hinder legs of a dog; and I am informed this happens frequently among hounds, where crocus metallorum is often given for the mange.

Arſenic I have repeatedly known to produce palſy. In one inſtance it ſeemed to affect the hands ſomewhat in the ſame manner as lead is known to do; but in two other

inſtances

inſtances no ſuch effect was obſerved; but the paralytic affection was general. It began, indeed, with a numbneſs at the extremities of the fingers; but no particular affection of the wriſts, no waſting of the muſcles, as is the caſe with lead, was obſerveable.

Mercury alſo is well known to be apt to produce palſy, eſpecially when inhaled in fume or vapour; as among gilders. Vertigo, tremors of the limbs, hands eſpecially, ophthalmia, and general weakneſs of the limbs, are the conſequences; but * no ſpecific affection of any particular part. Mercury alſo is well known, in many inſtances, to have the effect of diſordering the underſtanding to a great degree.

Biſmuth, which is uſed as the baſis of a fucus, or paint for the face (much in uſe among women) has been thought to poſſeſs qualities ſimilar to the other metallic poiſons above mentioned. Its principal effect ſeems to be ſhewn on the eyes; which it weakens very much.

* I have ſeen two caſes of perſons becoming totally blind by the too free uſe of mercury.

Zinc, I am inclined to ſuſpect, has ſome ſimilar qualities. Do not its virtues in epileptic caſes, if it has any, depend on its ſedative properties? Electricity has often been recommended as a remedy in palſy, and much cried up by ſome that pretend to ſecrets in the mode of adminiſtering this remedy; but the medical faculty have, I believe, nearly loſt all faith in it, from experience of its general inefficacy to be of ſervice, and, in ſome inſtances, of its miſchievous effects. I am more certain that a ſtrong electric ſhock poſſeſſes the power of cauſing a palſy, than I am of its having any power to cure it. We have lately had two inſtances in the Bath hoſpital, of perſons who had paralytic attacks after being ſtruck down with lightning.

I have myſelf ſeen electricity tried in many paralytic caſes; but never ſaw it produce any good effects. In ſome that were attended with great pain in the palſied parts, it had the effect of encreaſing this ſymptom; but this, inſtead of conducing to the cure, was evidently injurious, as the limb was always much weaker, as well as more

painful,

painful, after the adminiſtration of the propoſed remedy.

ARTICLE XX.

Caſe of an Ileus, with Obſervations on an Hydraulic Machine, by JAMES BUREAU, *Surgeon, and* F. M. S.

Read October 24, 1775.

ON the 3d of May 1775, a lady went on a jaunt into the country, and at night was ſeized with a violent pain in her bowels, which continued ſome time without remiſſion; and attended with a bilious vomiting, which frequently returned. As ſhe was coſtive, a cathartic enema was exhibited to procure ſtools, and eaſe the pain in the bowels. She was blooded, and various medicines of the purgative kind were given for ten days ſucceſſively, together with tobacco-fumes, per anum, and cathartic enemata, in order to procure ſtools. The warm bath was alſo uſed, and opiates occaſionally adminiſtered, to relieve the pain and vomiting;

but all to no purpose. The retchings frequently returned, the pain in the bowels continued more or less violent, and no stool could be procured. These symptoms continuing without any abatement, she was on the 13th day seized with a truly stercorous vomiting, exceedingly offensive to every one about her; yet was hardly sensible of it herself, either by smell or taste.

In this way she continued till the 16th, without any relief of her symptoms, by all the medicines or means that had been tried; at which time she was brought to town, when I first saw her, and received the above account from her husband.

The situation I found her in was truly deplorable, being in constant violent pain; and the fæcal vomiting returning, sometimes every half hour. Before I proceeded to the farther trial of medicines, I made every necessary enquiry by examination, as far as could be, whether or not there might be an incarcerated hernia; but could discover nothing that could induce me to suppose that that was the cause of the disease.

I ordered

I ordered warm fomentations to the abdomen. Sometimes ſhe took pills of aloes and ſoap, at others the Rochelle ſalts in peppermint water, juſt as her ſtomach could bear; and the tobacco fumes, per anum, were alſo very frequently applied, until it was found that they encreaſed the diſpoſition to vomiting.

Her ſkin in general was very cool, rarely perſpiring, and her pulſe, from the beginning of her illneſs (as I was told) was extremely firm and regular; and never from the firſt had ſhe any febrile ſymptoms, or marks of inflammation. It was propoſed to give her crude mercury; but ſhe abſolutely refuſed taking it, leſt, if it ſhould not paſs through her, it might add to her uneaſineſs by its weight; and indeed at this time ſhe objected to every thing in the way of medicine, being perſuaded that it would all prove ineffectual; and would take nothing but a little liquid nouriſhment now and then.

However, about the ſecond or third night from her coming to town, ſhe voided two or three very hard ſcybala, of a whitiſh colour,

lour, and apparently unmixed with bile; ſo that I reaſonably imagined that there was ſome obſtruction about the lower extremity of the inteſtinum ilion, occaſioned by indurated fæces, and that that which came away was a part of what formed ſuch obſtruction, as the clyſters that had been thrown up had evidently paſſed the rectum, from the quantity that had been received: but no benefit was experienced from this evacuation; the obſtruction ſeemed ſtill as obſtinate as ever, and the ſtercorous vomiting ſtill frequently returned.

Juſt at this time I recollected a hint that Dr. Stephen Hales has given in his Hæmaſtaticks, of the method of filling the inteſtines with warm water, by means of a perpendicular tube; and thereby to ſubdue inflammation, or reſolve obſtructions in the primæ viæ.

I thought the preſent caſe a very proper one to make ſuch experiments in; and I accordingly got a tin tube made, about four feet long, of about an inch and a half diameter

meter at top, and half that ſize at bottom. At the top of the tube was affixed a large funnel-head, with ſeveral holes near the brim, through which cords were paſſed to tie it up to the teſter of the bed; and at the lower extremity of the tube was fixed a ſmall ſheep's gut (there being no time for getting any thing better then) to which alſo was faſtened a common clyſter-pipe. The tube thus placed, the pipe was introduced in ano, the patient lying on her ſide, and held firm by the nurſe, whilſt a mixture of warm milk and water was poured into the funnel head, and gradually inſinuated itſelf into the inteſtines by its perpendicular gravity; which, however, ſoon cauſed much pain from its preſſure in the bowels, ſo that ſhe could not bear it any length of time; and it was accordingly removed.

Soon after this ſhe had ſome cold water thrown over the abdomen, agreeably to an experiment that has ſometimes been made to remove obſtinate coſtiveneſs; but which at the time ſeemed to effect nothing. However, in two days after the application of the tube, ſhe was ſuddenly ſeized with a violent

purging;

purging; from which time all her other ſymptoms gradually vaniſhed, and ſhe was thoroughly reſtored to health. From the long duration of the complaint, and the apparent inſufficiency of all medicines to remove it, I think it may fairly be concluded that the introduction of the mixture of milk and water into the inteſtines, was the only thing that ſeemed to be attended with ſucceſs; for though it was two days before the purging came on, yet I can ſuppoſe that ſome of this fluid remained in the bowels in contact with the indurated fæces, and in the courſe of that time ſo ſoftened them as to render their expulſion eaſily effected.

I have already obſerved that the firſt hint I received of making uſe of an hydraulic machine in obſtructions of the bowels, was from Dr. Hales's Hæmaſtatical Experiments; for from the obſervations he has made of its effects on brutes, he ſuppoſes great advantages may be derived from its uſe on the human body.

On peruſing De Haen's Ratio Medendi, vol. ii. ch. 23. I found an hiſtory of an hydraulic

draulic machine communicated to him by one Widemar, a Milaneſe phyſician, who extols its uſe very highly, and tranſmits to him two caſes in particular, wherein it was of ſignal ſervice; to which I refer the reader.

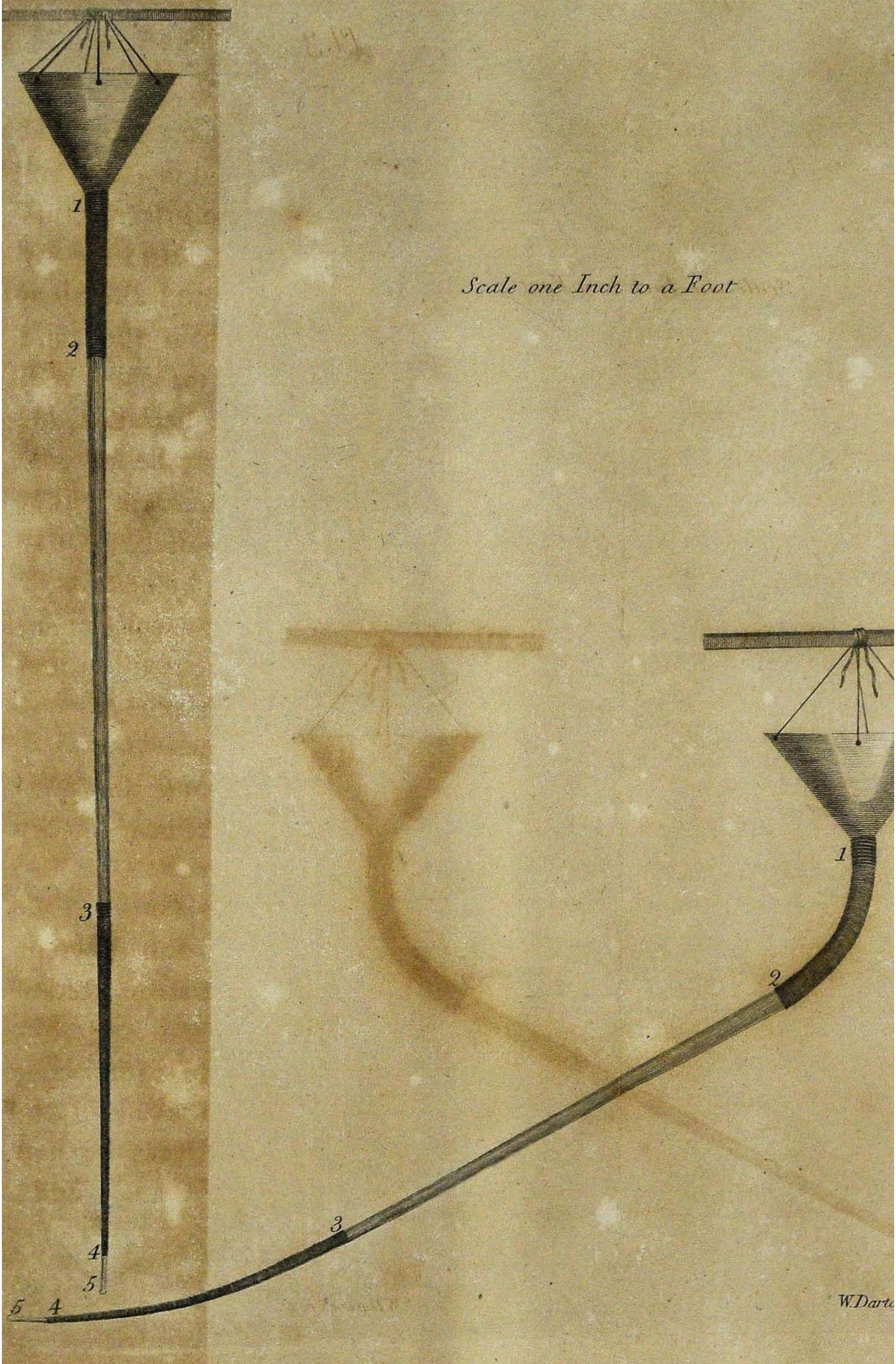
In the caſe of the lady already recited, not having a proper tube ready at hand, I was obliged to get one made as quickly as poſſible, as ſoon as the thought ſtruck me that it might be uſeful; therefore I got one made of tin, and conſequently inflexible. It was hung up by the ſide of the teſter of the bed, by ſtrings which paſſed through holes made at the brim of the funnel-head of the tube, and hung down perpendicularly; to the bottom of which was an elbow made, forming an obtuſe angle about a foot long, at the extremity of which was a piece of ſheep's gut tied, and laſt of all a common clyſter-pipe was fixed to that. This was the machine which in my haſte I put together.

The great uneaſineſs which the patient felt from the uſe of this machine, was no doubt from the preſſure made againſt the

valve of the colon, inſomuch that ſhe could not bear it many minutes ; and my tube being inflexible, I was unable to lower it ſufficiently to take off that preſſure ; for by lowering it towards an horizontal direction, the liquid would run out from the top : whereas in the tube I have ſince contrived, the funnel-head can always remain upright, whilſt the reſt of the tube may be lowered to any degree ; having thoſe parts of it that are flexible made of leather, ſewed cloſely over a worm of wire ; ſo that by bending it the ſides of the leather cannot collapſe, as they would do without ſuch a proviſion, and at the ſame time keeps it more ſteady.

Vogel, de cognoſcendis et curandis præcipuis corporis humani affectibus, adviſes the uſe of this machine.

After having enumerated the different methods to be made uſe of in an inveterate ileus; ſuch as purges, oil mixed with hot broth or gruel, emollient and ſtimulating clyſters frequently repeated, the uſe of tobacco clyſters, and even quickſilver ; he then adds,


Scale one Inch to a Foot
1
2
3
4
5
W.Darto

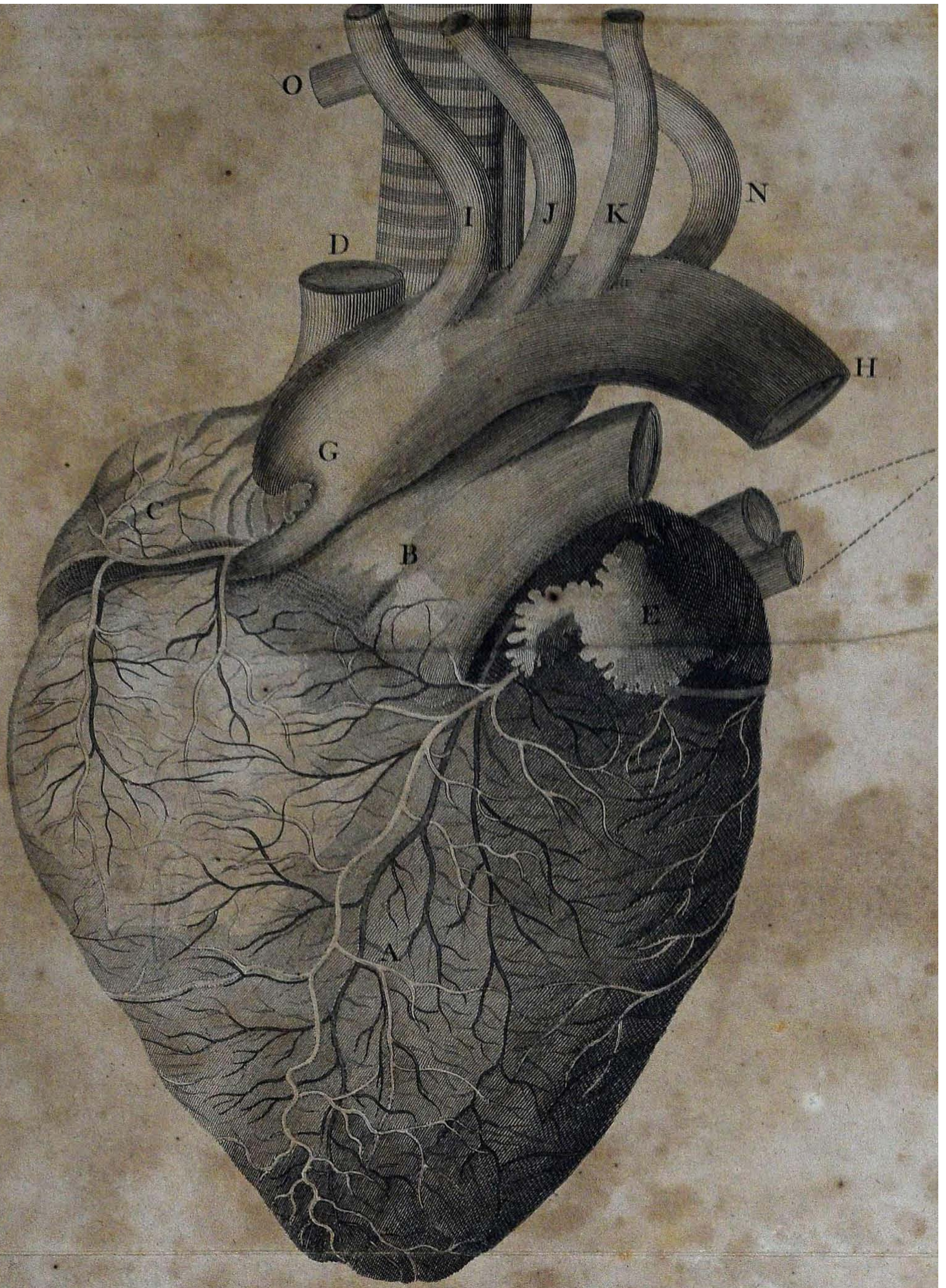
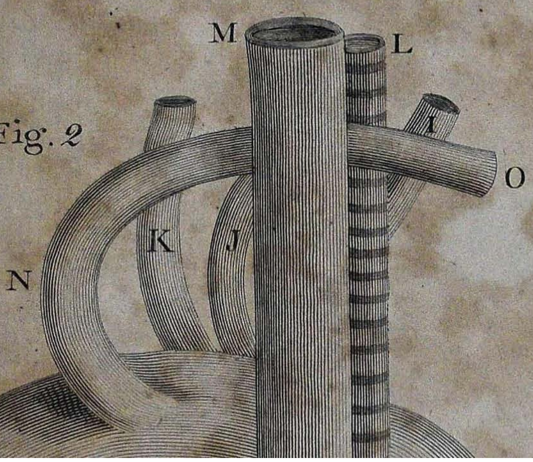


Fig. 2



adds, " Sin autem nec per hanc rationem ileus aut obſtructio expediatur ; ope machinæ hydraulicæ, in Italia nuper repertæ, multa aqua tepida ex inferioribus partibus impetuoſe in alvum, per intervalla quatuor circiter horarum, injicienda eſt.

I do not at all doubt but great benefit may be obtained from the uſe of ſuch a tube, judiciouſly applied ; at leaſt when every other common milder means have been uſed ineffectually. I think we may be authoriſed to uſe it, and ſay with De Haen in his own words : " Cum morbus ſit formidandus, nec raro cito necans, mirum non eſt, forti nodo, quæſitos fortes cuneos eſſe, et in deſperato, deſperata tentata."

EXPLANATION OF THE PLATE.

From fig. 1 to 2 of the tube, is leather, under which is a wire worm.

From fig. 2 to 3 is entirely of tin.

From fig. 3 to 4, is leather with the worm.

Fig. 5 is the clyſter pipe affixed.

ARTICLE

ARTICLE XXI.

Case of Inflammatory Constipation of the Bowels, successfully treated by JAMES MACCATRICK ADAIR, M. D. *in a Letter to* W. FALCONER, M. D. F. R. S. *and* C. M. S. *and by him communicated to the Medical Society of London.*

Read April 28, 1788.

Bath, February 25, 1788.

SIR,

I COMPLY with your desire in sending you the following case, which you were of opinion ought to be communicated to the public, on account of the singular mode by which the patient was relieved.

Thomas Stone, aged about 24 years, had been ill for several days before I visited him. His complaints had been deemed to be nephritic, and, I suppose, were treated accordingly;

ingly; but from every circumſtance it appeared to me that he laboured under an inflammatory conſtipation of the bowels.

Having preſcribed a copious bleeding, opiates, and purgatives, his bowels became ſoluble at the end of the third day after I viſited him; but the conſtipation again took place, and the former means, together with the uſe of clyſters of decoction of tobacco, of the ſmoke of this plant, and of repeated aſperſions of cold water on the abdomen and extremities, were totally unavailing. I therefore had recourſe to what has been, for many years, my dernier reſort in ſuch caſes, which, after repeated trials, effectually removed the conſtipation; and the patient is now free from every complaint, except that of great debility.

The means by which this relief was obtained, were many years ago ſuggeſted to me by the peruſal of the late celebrated Profeſſor De Haen's Ratio Medendi.

In one of his chapters, De Ileo, he mentioned an inſtrument, invented by an Italian phyſician, for the relief of perſons labouring under this diſeaſe. This inſtrument was nothing more than our common garden-pump, which is employed for watering our wall-fruit trees.

To the ſpout of this was affixed a leathern tube and a clyſter-pipe; and by means of the pump, warm water (with or without oil, or other laxatives) was injected per anum.

The profeſſor tells us, that he made the experiment on a dog, and found that liquids thus injected not only ſurmounted the valve of the colon, but paſſed into the ſtomach, and were rejected by the mouth. Soon after, an opportunity occurred of trying this expedient, and it ſucceeded; and ſo far as my recollection ſerves me, I have failed only in two out of 12 or 14 caſes which have occurred in my practice.

In one of theſe, it was probable that a gangrene had taken place before I was employed;

ployed; in the other it appeared, from diſſection, that a portion of the jejunum was ſo contracted as ſcarcely to admit a gooſe-quill; but ſo extenſive was the operation of the machine, that all the portion of the canal, below the impediment, had been quite emptied by the injection.

Common clyſters ſeem to fail, not only from their quantity being too ſmall, but from their not being injected with ſufficient force, even by a ſyringe; whereas, by this machine, a quantity of liquid, equal to ſix or eight pounds, may at once be injected into the canal, where, being gradually diffuſed, it diſſolves hardened fæces, and diſcharges them per anum; and though, where a permanent ſcirrhous conſtriction has been formed, no relief can be obtained by any means; yet I am inclined to believe, that neither this nor other inſuperable caſes of fatality occur ſo often as is ſuſpected.

With reſpect to thoſe ſpecies of the diſeaſe which are ſuppoſed to proceed from intuſſuſceptio, and incarcerated hernia; if the former is really a cauſe, I believe it occurs

very rarely; and I conceive that this mode of injection is the moſt likely means of removing the impediment; and I know from experience that it will generally empty the bowels when the progreſs of the fæces is intercepted by hernia, provided the extra-abdominal portion of the inteſtine is previouſly replaced by the hand, or by the operation for the bubonocele: but ſo far as my experience avails me, I may venture to aſſert, that of the caſes which have ended fatally, 19 in 20 proceed from indurated fæces, or the ſtones of fruits, or other inſoluble ſubſtances being accumulated in the canal; in which caſe, this machine, when employed early and aſſiduouſly, cannot fail of ſaving the life of the patient.

I proceed to offer ſome hints for the uſe of this machine; and ſhall conclude with a few curſory remarks on inteſtinal conſtipation.

The tube may be about a yard and a half in length, and about half an inch in diameter; the pipe ſhould be of the largeſt ſize, with

with a broad rim, to prevent the regurgitation of the liquid through the anus.

The injection has been sometimes simple warm water, or medicated by the addition of oil, soap, muscovado sugar, or common salt, according as the state of the bowels seemed to require its being less or more stimulating, to the quantity of a gallon or more. This injection being heated, and put into a narrow earthen vessel, the pump is to be immersed into the liquor, so as to cover the air-holes; the embolus or staff is to be worked till the tube is filled; and the liquor flows from the pipe nearly of the warmth of milk from the cow. The pipe is then to be introduced into the anus, and the liquor injected gradually, until the patient complains of a sense of painful distention of the bowels, owing to the parietes of the intestines being too suddenly stretched by the column of liquid injected. The operator, therefore, must stop for one or two minutes; and in the mean time the abdomen should be gently rubbed with a little warm oil, to assist the diffusion and ascent of the liquid into a supe-

rior portion of the inteſtine, in conſequence of which the ſenſe of diſtention gradually abates, or totally ceaſes; when the injection is to be renewed with the ſame precaution, until the patient is ſeized with an irreſiſtible deſire of going to ſtool.

If nothing but the injection is diſcharged, the operation is to be repeated every hour, or two hours, till the fæcal contents are evacuated; and in the intervals cold water may be daſhed on the abdomen and extremities for a minute or two, which, beſide its powerful effect in reſolving ſpaſmodic conſtrictions, diminiſhes febrile heat, and invigorates the patient.

As the liquid is cooled in its paſſage through the pump and tube, it ſhould be heated to about 120 or 130 degrees of Farenheit's ſcale; but for this there can be no certain rule, as the ſenſibility of the bowels muſt be different in perſons, either conſtitutionally, or in conſequence of morbid irritation; care, however, ſhould be taken that the heat may be rather below than above par.

Cold

Cold clyſters have been recommended in cholics; but, as I never made the experiment, I cannot determine how far their application may be adviſeable, when the bowels are in a ſtate of inflammation.

I have not, upon enquiry, found that this machine has been employed for this purpoſe, in the Britiſh dominions, by any other practitioners: a circumſtance which, if true, is very ſurpriſing, conſidering the reſpectable authority on which it is recommended, and the frequent fatality of the diſeaſe under the common modes of treatment.

With reſpect to the other remedies employed. When the pulſe is ſtrong and quick, I always order blood to be drawn from a large orifice, from experimental conviction that the ſuddenneſs of the depletion contributes more than the quantity evacuated to abate inflammation, and to render the uſe of ſubſequent means more ſafe.

When the pain is great, and the ſtomach ſo irritable as to reject whatever it receives, I

always prescribe opium, in a solid form, in doses proportioned to the degree of irritation, and never venture on cathartics of any kind until I have reason to believe that they will be retained; for the premature use of them not only defeats the purpose of their administration, but often exasperates all the symptoms.

I am, however, more cautious and sparing in the use of opium in inflammatory, than in spasmodic cholic; and indeed opium is so indispensably necessary in the colica pictonum, or dry belly-ach, as it is vulgarly termed, of hot climates, that I have been assured by a West India practitioner, that he has frequently and speedily cured this disease by giving a grain of opium every hour; and the spasm being thus resolved in 24 or 36 hours, the belly has sometimes become spontaneously soluble.

I never, however, carried the use of opium so far, even in this species of cholic (which in its nature and symptoms is analogous to the bad cholic of this country); nor have I ever

ever had occaſion to employ the garden-pump; though I believe an early uſe of it would ſhorten the cure, and might prevent the ſubſequent paralyſis, which ſeems to reſult ſolely from violent and long continued irritation.

Phyſicians are rarely employed at the commencement of a diſeaſe; but if an opportunity ſhould hereafter occur, which might enable me to manage the inflammatory cholic in its firſt ſtage, I ſhould rely chiefly on bleeding, opium, and the uſe of the garden-pump, without interpoſing the uſe even of the mildeſt purgatives; for I am convinced that they often exaſperate the ſymptoms, and increaſe the fatal tendency of the diſeaſe.

To young practitioners it may be right to point out an error, which is, I believe, very frequently committed. In common cholic it is a frequent practice to give tincture of rhubarb, or infuſion and tincture of ſenna, and other griping purgatives, which often ſucceed when the fit proceeds from laxity and

and flatulence; but in ſtrong and full habits their ſtimulus often renders them ineffectual, and even unſafe. The bowels imperfectly emptied by theſe means, become again coſtive; but the ſame purgatives may be ſo far from being again effectual, that by their ſtimulus they may convert a ſimple cholic into an iliac paſſion. To prevent this dangerous tranſition, inſtead of repeating the purgative, if the pain of the bowels is ſevere and fixed, bleeding becomes neceſſary, eſpecially if, from acceſs of fever, there is reaſon to ſuſpect that inflammation has taken place; otherwiſe opium, in doſes proportioned to the exigency, aſſiſted by bland clyſters, will generally be ſufficient for the purpoſe.

Dr. Chalmers of South Carolina recommends a ſolution of the vitriolum cæruleum in the ſpaſmodic cholic. I have ſometimes preſcribed it in pills, with calomel, gumboge, or both, after the pain has been quieted by opium. A ſurgeon in Antigua, celebrated for his ſkill in the cure of this diſeaſe, relied on the uſe of large doſes of opium and calomel, well aſſured, ſo ſoon as the mercury affected

affected the mouth, the ſpaſm would ceaſe. Draſtic purges are more ſafe in this than in the inflammatory cholic.

This ſpecies of cholic was formerly very frequent in our Weſt India colonies; but on my return to Antigua in 1777, after an abſence of 15 years, I found that, without any aſſignable cauſe, it had become exceedingly rare; and on converſing with a medical man, who had reſided many years at Jamaica, he remarked, that of late it had become much leſs frequent than formerly in that iſland.

I am, Sir,

Yours, &c.

Dr. Falconer. J. M. ADAIR.

London, June 7, 1788.

DOCTOR ADAIR finding that Dr. Falconer has omitted to tranſmit to the ſociety ſome farther remarks on the ſubject of the firſt, would deem himſelf deficient in point of candour, were he to conceal a circumſtance which has occurred ſince the firſt paper was tranſmitted to the Society.

Dr.

Dr. Falconer being consulted in a case of inflammatory constipation, desired Dr. Adair to give directions for the use of the pump. It was used only twice, and the patient died within 36 hours.

Dr. Falconer did not, however, deem this trial sufficient to lessen his confidence in the machine; and Dr. Adair thinks it highly probable, from the account he had of the patient's state at the commencement of the trial, that a gangrene had taken place.

Dr. Adair thinks it proper to remark, that during the first trials the bowels are so irritable, and the impediment, from accumulated fæces, so great, that the patient may not be able to receive above one or two pints of liquid before he discharges it; yet afterwards may be able to retain six or eight pints.

He thinks that the best posture for receiving the injection, is by leaning on the elbows and knees, and when the patient is tired of this posture, he may receive it lying on his back; because either of those positions seems

to

to be more favourable to the aſcent of the liquid in the inteſtinal canal.

It would be more convenient to have the veſſel which contains the liquid, made of iron, and ſoldered to the end of the pump. Dr. Adair directed an apparatus, conſiſting of the pump, leather tube, and ſhouldered clyſter-pipe, to be put up at Jones's, No. 33, Holborn; but as it was to be ſent abroad, the veſſel was not affixed to it; as any veſſel which could contain about a gallon of liquor would anſwer the purpoſe. Before Dr. Adair leaves town he will leave full directions with Jones, ſhould any perſon apply for the apparatus.

ARTICLE

ARTICLE XXII,

An Attempt to aſcertain the Powers concerned in the Act of Vomiting, by Experiments made in April 1787, *by* JOHN HAIGHTON, *Surgeon, and* F. M. S.

Read June 16, 1788.

VOMITING is an action which ſeems to have been explained by phyſiologiſts in a more ſatisfactory manner than many other animal functions. It is generally allowed to be performed by the concurring efforts of the ſtomach, diaphragm, and abdominal muſcles; and that none of theſe powers ſingly is conſidered ſufficient to produce the act of vomiting.

Before the contents of the ſtomach are diſcharged, a moderate full inſpiration is uſually made, in which the diaphragm deſcends, or in other words, loſes its vaulted concave appearance

appearance on its abdominal ſurface, and becomes reduced nearly to a plain; in conſequence of which a preſſure is made on the upper part of the ſtomach. Whilſt this is performing, the abdominal muſcles, by antagonizing the diaphragm, draw down the ribs, and at the ſame time make a preſſure on the inferior part of the ſtomach; ſo that from the united efforts of theſe two powers, viz. the diaphragm above, and the abdominal muſcles below, we ſhould expect the contents of this viſcus would be diſcharged; and this really happens if a peculiar condition be induced on the ſtomach, exciting nauſea; but in what that particular ſtate may vary from the natural one, is not very evident. However, this effect is produced. A ſlight contraction begins at the pylorus, and extends, in an inverted direction, as far as the middle of the ſtomach; by which means its natural convex figure is deſtroyed, and it becomes ſomewhat flattened. When theſe three cauſes concur, vomiting is produced; and in this way phyſiologiſts have generally explained this action.

But

But in confequence of fome experiments lately made in France, this theory has been called in queftion. It is afferted, that the action of the abdominal mufcles is not always neceffary to produce vomiting; and that the contents of the ftomach can be difcharged when their action is taken away; and what is contrary to all expectation, and even repugnant to reafon, is, that the ftomach, inftead of contracting or diminifhing its capacity, is evidently enlarged at the inftant of expulfion.

A condition of the ftomach fo oppofite to the general laws of animal nature, excited the attention of fome gentlemen in this country; and the fame experiment, which had led to fuch an extraordinary conclufion, was repeated at Edinburgh. A friend of mine who was prefent, gave me the following account:

A dog, having fwallowed fomething capable of exciting vomiting, had an opening made into the abdomen as foon as it began to operate; and in a very fhort fpace of time,

time a ſmall quantity of fluid was diſcharged by the mouth. It was uncertain whether the ſtomach was in a dilated ſtate at the moment of expulſion or not, but was evidently diſtended prior to it, from a quantity of air taken in by the mouth.

This experiment did not ſeem in any reſpect deciſive; for I ſuſpected that the diſcharge from the mouth, which had been called vomiting, was occaſioned either by ſome preſſure which the ſtomach had received by the falſe ribs, or by the eſcape of ſomething which was previouſly lodged in the œſophagus. In order, therefore, to aſcertain this point, I made the following experiments.

EXPERIMENT I.

A ſcruple of emetic tartar, mixed with about one ounce of water, was given to a dog. In eight minutes he vomited. He was immediately fixed upon a table, and a tranſverſe inciſion made through the abdominal muſcle and peritonæum, from the right ſide to the left. From the centre of this inciſion, a lon-

a longitudinal one was carried upwards, as far as the ſternum, in the courſe of the linea alba. By this means two angular flaps were made. The ſtomach, and a great part of the inteſtines immediately protruded; and to prevent the ſtomach receiving any preſſure from the falſe ribs, I kept them conſtantly elevated with my hand. About four ounces of warm water, in which a ſcruple of Roman vitriol had been diſſolved, were injected into the ſtomach (by means of a long curved pipe fixed to an elaſtic vegetable bottle) to excite the powers concerned in vomiting anew. He ſoon became ſick, and made repeated attempts to vomit; but could diſcharge nothing. In theſe attempts air was taken in by the mouth; and every ſucceeding effort increaſing the diſtention of the ſtomach, it became at laſt as tenſe as a drum. Whilſt this was taking place, the fauces were frequently irritated, and violent attempts were thereby induced; but nothing could be made to eſcape from the ſtomach. To ſatisfy myſelf that the diſtention was owing to the reception of air, I made a puncture, and diſcharged it; and to prevent any part of the contents of the inteſtines eſcaping into the ſtomach from inverted

inverted motion, I made a preſſure on the pylorus with my finger and thumb. In this ſituation the dog was kept upon the table for an hour; when the powers of life beginning to faulter, we reſigned him to his fate.

In this experiment the ſtomach was expoſed to the cold air; I wiſhed, therefore, to obviate any objection that might ariſe from this circumſtance; and to this end the proceſs was diverſified in the following manner.

EXPERIMENT II.

THE ſame quantity of emetic tartar, mixed in four ounces of milk, was given to another dog; and in three minutes I made an opening into the abdomen, in a manner ſimilar to the former. The ſtomach and inteſtines being completely expoſed, and ſickneſs not having yet taken place, I obſerved, with ſome attention, the changes induced upon this viſcus, in its tranſition from the natural ſtate to that of ſickneſs. The moſt obvious natural

appearance is its periſtaltic motion. In this every part of the ſtomach does not ſeem to perform an equal ſhare; it being much more evident in the right portion than in the left.

It begins nearly in the middle of the ſtomach, by forming a circular contraction ; ſo that it ſeems as if it were divided into two portions, like an hour-glaſs. From this point the contraction proceeds towards the inteſtines ; and in the mean time, the part where the action firſt began recovers its former ſtate. A ſucceſſion of theſe actions conſtitute the natural periſtaltic motion ; and in which the left portion ſeems to perform only an obſcure part.

As ſoon as ſickneſs commenced, this action became weaker, and preſently its order was evidently inverted ; for inſtead of the contraction beginning in the middle of the ſtomach, it began at the pylorus, and extended nearly to the middle ; and at this time a quantity of air being taken in by the mouth, it became ſomewhat diſtended.

This

This contraction at the pylorus ſeemed chiefly for the purpoſe of preventing the eſcape of the contents into the inteſtines, and of determining them upwards to the œſophagus; however, no diſcharge enſued. A quantity of water, made warm, was poured upon the ſtomach by means of a ſponge; ſo that its natural warmth was preſerved. Several efforts to vomit were made, without effect. About half a ſcruple of white vitriol, diſſolved in warm water, was injected into the ſtomach, and its action was aſſiſted by irritating the fauces; but no vomiting could be produced. Having perſiſted in theſe means about an hour, the animal became exhauſted.

Hitherto my attention had been chiefly directed to the powers of the ſtomach, with a view to aſcertain whether there be inherent in it, force ſufficient to diſcharge its contents, without the aid of the abdominal muſcles; and to excite theſe powers in a very high degree, I introduced into the ſtomach ſome of the moſt active articles of the Materia Medica. I wiſhed next to know whether

a ſtimulus, applied to the peritonæal coat of this viſcus, would ſo far aſſiſt the action of an emetic, as to produce vomiting.

EXPERIMENT III.

ANOTHER dog was procured, and the ſame quantity of emetic tartar, mixed in milk, was given to him. In a few minutes he was fixed on the table, and opened in the ſame manner; and warm water, with white vitriol diſſolved in it, was again injected into the ſtomach. He ſoon became ſick, took in air by the mouth repeatedly, ſeemed in great diſtreſs, but could not vomit. Beſides keeping up the natural heat of the ſtomach, by pouring upon it warm water from a ſponge, as in the laſt experiment, I dropped at different times ſome of the cauſtic volatile alkali upon its ſurface; which excited it to very forcible contractions from the pylorus upward; but it produced no diſcharge. I waited ſome time, but no further change took place. I began now to be ſatisfied that there

there were not powers in the ſtomach ſufficient to expel its contents, without adventitious aid. I wiſhed to know how ſmall a degree of aſſiſtance was neceſſary; and therefore placed my hand in ſuch a poſition, that, in the next effort to vomit, the diaphragm might puſh the ſtomach againſt me; which it did, and he vomited inſtantly.

I was very cautious to avoid any active preſſure; and therefore made my hand a fixed point, allowing the diaphragm to preſs the ſtomach againſt it, rather than to preſs upon the ſtomach with my hand. In about a minute he became ſick again: a gentleman who attended the experiment placed his hand in a ſimilar manner, and he vomited again. Though in every effort to vomit the ſtomach had been very much puſhed down by the diaphragm, yet as the abdominal muſcles were removed, its preſſure was always eluded; but in placing any reſiſting body in their ſtead, without attempting any thing like an imitation of their action, the diaphragm, aided by the ſtomach's own efforts, expelled its contents.

Having endeavoured to explain what I conceive to be the œconomy of the ſtomach in this operation, our curioſity may perhaps be excited to trace the cauſes of ſuch a contrariety of reſult from the ſame experiments made by others; and to determine the preciſe circumſtances which led the French phyſiologiſts to imagine that the ſtomach was not only able to expel its contents without the abdominal muſcles, but was even diſtended at the very moment of expulſion. Of this I can only conjecture. Vomiting may be produced, if the opening into the abdomen does not extend far enough to the left ſide; for the lateral portions of theſe muſcles being entire, may, by drawing down the falſe ribs, preſs upon the ſtomach, and thus produce vomiting; and a quantity of air being taken into the ſtomach previous to the diſcharge, together with a more evident profuſion of it from the action of the diaphragm, might lead an obſerver, not aware of ſuch a deception, into an idea that the ſtomach is dilated in the act of vomiting. However, I am perſuaded that experiments conducted under this caution, will be attended with a contrary reſult.

What has been advanced above, applies only to animals with ſtomachs ſimilar to the human ſubject.

ARTICLE XXIII.

Caſe of an extraordinary Enlargement of the Abdomen, owing to a fleſhy encyſted Tumour, by R. PULTENEY, M.D. F.R.S. *and* C.M.S. *in a Letter to* J. C. LETTSOM, M.D. *&c.*

Read June 9, 1788.

MRS. M. was ſprung from parents who both died dropſical; and ſhe had a dropſical tendency in her conſtitution for ſeveral years before the diſeaſe ſeemed to originate, which proved fatal to her. She was married about the age of twenty-ſix, but had not borne children. She had been ſubject to hyſterical affections, but had in general been remarkably regular in the natural evacuations of the ſex; and continued ſo to nearly the laſt period of her life.

For

For more than three years before her death, this lady began to be ſubject to pains of a very excruciating nature, on the left ſide of the belly, which often attacked her, and ſometimes brought on violent ſpaſms and hyſterical fits, which not unfrequently held her for ſeveral hours. The violence and frequency of theſe fits, by degrees, abated; but all the ſymptoms of a dropſy advanced very faſt, and a weight and tumour, which for ſome time had been perceived on the left ſide, became more manifeſt. It was imagined that water fluctuated in the abdomen; and, though this might probably be the caſe in the earlier ſtage of the diſeaſe, yet the ſeat of the pain, and the circumſcribed nature of the tumour from the firſt, ſtrengthened the ſuſpicion of an enlarged ovary, and announced an unfavourable prognoſtic very early. The ſwelling gradually enlarged, and in the ſpace of a year the whole abdomen became hard, while the tumefaction of the cellular membrane in general ſubſided; and the body and limbs (except the ancles, which had ever been ſubject to ſwell) became gradually emaciated, and, finally, to an extraordinary degree.

During

During the greater part of the years 1785 and 1786, notwithſtanding the vaſt bulk of the body, ſhe was able to take the air in a carriage, and almoſt daily to walk a little way; and her general health was conſiderably better than in the early ſtate of the diſeaſe. Towards the latter end of 1786, however, the legs ſwelled enormouſly, broke, and diſcharged; but without any ſignal benefit, or diminution of ſize in the body. For near a month before her death, the mouth and fauces, as has been obſerved in ſimilar caſes, became highly aphthous; and this affection gradually increaſing, ſhe ſunk under her accumulated calamities, and died January the 30th, 1787, in the 45th year of her age.

Appearances on opening the Body.

Upon puncturing the abdomen with the trocar, a ſmall quantity of a glairy light-brown coloured liquor iſſued forth. After the integuments were laid aſide, there appeared an immenſe tumor, occupying the whole cavity of the abdomen, and which, from its bulk, had in an extraordinary degree deranged the ſituation of the viſcera; all

all of which, though they appeared not to be in a diseased state, were, from the total loss of fat, apparently much reduced from the natural size. The pressure upon them had been so great, that it afforded matter of curious speculation how the œconomy of life had been carried on so long, under so great an oppression and derangement.

The tumour itself was nearly round, and did not adhere to the parietes of the abdomen, unless here and there by slight fibrous connexions; but at its origin in the pelvis, it was firmly connected with, or seemed rather to proceed from, one of the broad ligaments; and no trace of the ovary could be distinguished. The uterus was stretched, and spread in an elongated manner on one side of the tumour.

This large body was of a fleshy nature; and in some parts of a scirrhous-like, and almost tendinous hardness. It was made up of a congeries of smaller tumours, from the size of a nutmeg to that of an egg; and many were much larger. These were closely compacted,

compacted, and intimately united to each other; each, however, being a ſeparate cell, or cyſt, with an extremely thick fleſhy coat, containing in its cavity a ſmall quantity of the glairy fluid before mentioned. In ſome inſtances theſe cyſts ſeemed to communicate with each other, in others not ſo; the whole ſuggeſting the idea that they had originally been hydatids, the coats of which had been gradually thickened, and the whole become an organized maſs of fleſh. The preſſure, as it ſhould ſeem, of the tumour on the *Ilia*, had rendered both of them carious and purulent; and eſpecially that on the affected ſide. This maſs was taken entirely out of the body, and weighed fifty-ſix pounds, excluſive of the fluid loſt in the diſſection; which might probably amount to three or four pints.

The firſt ſymptoms of a diſeaſed or dropſical ovary, are allowedly very obſcure and equivocal. Probably in moſt caſes the part is ſo far enlarged, as to be ſenſible, even by its weight, to the patient, before the diſeaſe is diſcovered. In the advanced ſtate, it

is well known to admit of great variety, in reſpect to the change that the ovary has undergone, as well as in the nature of the contents. In ſome, the whole forms one large bag, or cyſt full of water, of different degrees of fluidity, as in the aſcites; in others it is made up of a congeries of cyſts, with coats more or leſs thick, and the contained fluid is ſometimes glutinous and ropy, and ſometimes of a ſteatomatous nature; in others, the whole is made up of hydatids: of this latter kind, probably, were the cyſts deſcribed in the preſent caſe in the beginning of the diſeaſe; for that the tumour originated in the ovary, I think we can ſcarcely doubt, from the ſtrong connexion it had with the broad ligament only, and the impoſſibility of diſcovering any ovary on that ſide.

Diſeaſes of this part are, unhappily, among thoſe which admit of ſmall relief from medicine. It may, indeed, too juſtly be doubted (if in any inſtances they are aſcertainable in the beginning) whether the progreſs of them can be checked by the power of phyſic.

In

In the later periods, phyficians but too frequently experience the inefficacy of their art. Palliative relief is then only to be expected. For what medicine could avail againft the increafe of an organized mafs of flefh, which feemed at laft, indeed, to be bounded only by the incapacity of the abdomen to admit of farther enlargement?

In the prefent cafe, while the tumour was not extraordinarily larger, and the cellular membrane was loaded, diuretics of various kinds were adminiftered, upon cafual diminutions of the renal fecretion, with fuccefs. As the emaciated ftate came on, they were more difufed; and gentle opening medicines procured temporary alleviations.

It has been ufual to confider and denominate all general enlargements of the abdomen as dropfies; and to this term, among people at large, is even annexed the idea of water in the cavity. Were the prejudices of mankind fo far overcome, as to allow of more frequent diffections, the diagnoftics of the feveral kinds of dropfies and tumours of the abdomen

abdomen might become, if not fixed, at leaſt much more probably aſcertainable; and a juſt prognoſtic ſecured by the practitioner, not leſs advantageous to his reputation than to the general advancement of the art. Much injudicious and fruitleſs application of medicine would be prevented, and, not unfrequently, the unavailing operation of the paracenteſis, by which the fate of the patient has doubtleſs been often accelerated.

It would be tedious and unneceſſary to quote a number of authors for caſes of this kind; they are frequent in the writers of pathological obſervations, and in the Sepulchreta of Bonetus and others. The Philoſophical Tranſactions, and the London Medical Obſervations, contain ſeveral; but above all, the Hiſtoria Anatomico-Medica of Lieutaud abounds with them, under the heads Ovaria Tumentia, Ingentia, Scirrhoſa, &c. Yet among all theſe, I do not meet with any in which the whole tumour was ſo entirely compoſed of an hard fleſhy ſubſtance, as in that of the preſent inſtance; ſince I think, from the beſt computation I am

am able to make, that the whole could not contain five or ſix pints of fluid.

From this circumſtance, the diſeaſe in its laſt ſtage, however connected originally with a dropſical cauſe, will be found, in the ſyſtems of modern noſologiſts, under the term phyſconia; of which genus Sauvages, Cullen, and Sagar, enumerate fourteen or fifteen ſpecies; deriving the ſpecific name and diſtinction from the different viſcera, or parts from which they originate.

Sauvages, after quoting the caſe mentioned by Monro in the Edinburgh Medical Eſſays, vol. vi. produces one from Horſtius*, in which, though not ariſing from the ovarium, the tumour was equal to that I have deſcribed; ſince it weighed fifty-ſix pounds, and was of a ſtrong, fleſhy, and ſcirrhous ſubſtance. It was connected with the ſtomach; and is referred to the phyſconia omentalis.

* Noſol. Method. Vol. ii. p. 485.

In Morgagni's book, De Caufis et Sedibus Morborum, the reader will meet with much fatisfactory information on this head. This author defcribes a * cafe, in which the ovarium weighed twenty-four pounds. This tumour was unconnected, except with the left fide of the uterus, and was compofed of veficles of unequal magnitudes.

I may refer alfo to an inftance in the Philofophical Tranfactions, communicated by Dr. Short †, in which the right ovary was found diftended into a fac, containing a large quantity of fluid; and the left was enlarged, and formed a cyftic tumour, which weighed twenty pounds. Lieutaud, among many others, from a variety of authors, cites a cafe from Vater, of a woman who died at the age of fixty years, after having laboured under what was called a dropfy for the laft ten; in whom the right ovary had increafed to fuch a magnitude, as to weigh upwards of one hundred pounds ‡.

* Epift. xxxix. § 39. † Vol. xlii. p. 223.
‡ Hift. Anatomico Medic. lib. i. obf. 1487.

ARTICLE

ARTICLE XXIV.

An Account of a ſingular Caſe of obſtructed Deglutition, by DAVID BAYFORD, *of Lewes,* M.D. F.R.S. *and* C.M.S. *Communicated by* NATHANIEL HULME, M.D. F.M.S. *and Phyſician to the Charter-Houſe, &c.*

Read July 2, 1787.

JANE FORDHAM was born at Raſſenbourn, near Royſton in Hertfordſhire, in the laſt year of the laſt century. From her infancy ſhe was obſerved to have ſome difficulty in ſwallowing; but it was not much attended to till ſhe entered into her thirteenth year, when ſhe firſt experienced thoſe ſymptoms which commonly precede the eruption of the menſes. At this time it became ſo conſiderable, as induced her to have recourſe to medicine for relief; but ſhe received no ſenſible benefit from any thing, except repeated bleeding. Every month ſhe

was under the neceſſity of loſing-blood once, or oftener, according to circumſtances; for without it ſhe could not ſwallow but with extreme difficulty, and a dread of actual ſtrangulation upon every attempt. She went on in this way, with the diſeaſe gradually increaſing, for many years; during which time ſhe conſtantly obſerved that her difficulty of ſwallowing was increaſed by violent exerciſe, and, as ſhe expreſſed herſelf, by every thing that heated her blood; ſo that ſhe was frequently obliged to loſe blood once or twice in the intervals of the month. The neceſſity for the ſtated monthly bleedings was probably owing to a defect of the catamenia, as they never made their appearance till after her marriage, which took place in the 28th year of her age. About this time ſhe removed to Linton in Cambridgeſhire, where her complaints gradually increaſed for a number of years. She became incapable of taking down nouriſhment to ſupport her ſtrength; and was at length admitted into the pariſh workhouſe, in conſequence of being diſabled by weakneſs from providing for her own maintenance.

nance. From this time I had an opportunity of procuring a more accurate account of her caſe; and the ſurgeon who attended the workhouſe favoured me with the following particulars:

For the laſt twenty years of her life, this poor creature could ſcarcely from day to day muſter up reſolution to force down food to prevent her ſtarving; ſo much was the difficulty of ſwallowing now increaſed. This difficulty ſhe deſcribed as ariſing from an obſtruction in that part of the œſophagus which is oppoſite the firſt bone of the ſternum. The food did not return when it came to that place, but ſeemed to make a momentary ſtop; and in the inſtant ſhe felt an inexpreſſible ſomething approaching to ſtrangulation or ſuffocation, which ſhe could only compare to what ſhe conceived of the agonies of death. Upon theſe occaſions ſhe always experienced violent palpitations of the heart; and from the extraordinary motions of this organ, ſhe formed an opinion of her own caſe, which is worth mentioning, not only for its ſingularity, but becauſe it may

convey ſome idea of the peculiarity of her ſenſations. She fancied that ſhe nouriſhed within her a voracious animal; and attributed all her uneaſineſs to the fury with which this half-ſtarved monſter fell upon each morſel in its paſſage to the ſtomach. Different kinds of food made no ſenſible difference in the effects, except that ſolids gave her leſs uneaſineſs than fluids; for which reaſon ſhe took very ſparingly of the latter. As her complaints were continually aggravated, rather than diminiſhed by time, ſhe became at length unable to ſtruggle; and being worn out with fatigue and famine (for it is aſſerted that ſhe ſcarcely ſwallowed a ſingle morſel for the laſt three weeks of her life) ſhe ſunk into her grave in the beginning of February 1761.

I was by accident upon the ſpot at the time of her death; and having heard the above hiſtory of her caſe, I felt myſelf intereſted in making a further enquiry into the cauſe of the obſtruction, by an examination of the dead body.

A
E
F
G
C
F
G
D

It was not thought neceſſary to open the head, as there was no reaſon to expect any miſchief in that part. The cavities of the thorax and abdomen were fully examined; but to my great diſappointment, neither in them nor in the œſophagus, or parts adjacent, was there the ſmalleſt appearance of diſeaſe, except emaciation in the extreme may be thought to deſerve the name. At length, by mere accident I diſcovered an extraordinary luſus naturæ in the diſpoſition of the right ſubclavian artery; which will eaſily be underſtood by the references to the annexed figures *.

FIGURE I.

A. An interior view of the body of the heart.
B. The trunk of the pulmonary artery.
C. The right auricle.
D. The deſcending cava entering the right auricle.
E. The left auricle.
F. The pulmonary veins entering the left auricle.
G. The

* The original preparation from whence the drawing annexed was taken, is in the poſſeſſion of John Hunter, Eſq.

 It

It ſhould ſeem that this peculiar origin and courſe of the right ſubclavian artery has hitherto

G. The aorta aſcendens.

H. The aorta cut off at the part where it firſt adopts the name of deſcendens.

I. The right carotid artery.

J. The left carotid artery.

K. The left ſubclavian artery.

L. The trachea.

M. The œſophagus.

N. O. The right ſubclavian artery ariſing from the poſterior part of the aorta, behind and on the left hand of the left ſubclavian artery. In croſſing from the left to the right ſide it paſſes behind the three veſſels I. J. K, which ariſe from the curvature of the aorta, and inſinuates itſelf between the trachea and œſophagus L. M. The trachea therefore occupied a ſpace, which is left between this extraordinary veſſel and the other aſcending branches of the aorta.

FIGURE II.

Repreſents a poſterior view of the arch of the aorta, and the four aſcending branches before deſcribed, with the trachea and œſophagus. The ſame parts are marked with the ſame letters as in the preceding figure. N. O. point out the right ſubclavian artery as

hitherto eſcaped the obſervation of anatomiſts, otherwiſe in all probability it would have been recorded, if not for its own ſingularity, at leaſt for the conſequences which muſt naturally follow from it. It is impoſſible to ſuppoſe the act of deglutition performed in this caſe without a certain degree of preſſure upon the artery, where it paſſes between the trachea and œſophagus. Hence muſt ariſe an interruption of the circulation, which in ſo large an artery, and ſo near the heart, could ſcarcely fail of exciting very diſagreeable ſenſations.

The degree of preſſure muſt neceſſarily vary in proportion to the bulk of the morſel

as before; the origin of which is here diſtinctly ſeen. The extremity O. was in the natural ſtate thrown further back, and conſequently at a greater diſtance from the right carotid artery than can be well expreſſed by the drawing; for the veſſel in its courſe from N. to O. runs nearly or altogether in the tranſverſe line of the body; but the three ramifications which ariſe from the curvature of the aorta are diſpoſed obliquely, ſo that the firſt is anterior to the ſecond, and the ſecond to the third. This circumſtance explains the manner in which room was left for the paſſage of the trachea.

transmitted,

tranſmitted, the fulneſs of the artery, and the reſiſtance of the trachea; and this exactly correſponds with the hiſtory of the above caſe. In infancy the obſtruction was ſmall, becauſe the trachea was ſoft and flexible. As ſhe approached to maturity, the difficulty of ſwallowing increaſed; but in the plethoric ſtate only was it diſtreſſing. As ſhe advanced in years, the trachea became gradually more and more rigid; and every care and attention proved inſufficient to retard the progreſs of the ſymptoms, which of courſe finally terminated in death.

She ſwallowed ſolids more eaſily than fluids, and probably for this reaſon; that in the common way of drinking, a more permanent preſſure was made upon the artery by the ſucceſſive column of fluid, than there was by a ſolid bolus inſtantaneouſly paſſing, and the ſize of which ſhe could regulate at pleaſure.

If the reaſoning which I have uſed upon this occaſion be at all concluſive, and the unuſual ſituation of the right ſubclavian artery

tery be conſidered as the ſole cauſe of the obſtruction in deglutition, a new ſpecies of dyſphagia is hereby eſtabliſhed; which may be called luſoria, from the Luſus Naturæ that gives riſe to it.

To diſtinguiſh this ſpecies of dyſphagia in practice will be no very difficult matter, if a little attention be paid to the hiſtory of the preceding caſe. I have purpoſely drawn it out with a degree of minuteneſs, which might appear tedious and offenſive, were it not in a great meaſure neceſſary in pointing out the difference between this and all other known cauſes of obſtructed deglutition. I have thought this the more neceſſary, becauſe I am fully perſuaded that this variety is no very rare occurrence, notwithſtanding it has hitherto remained unnoticed. I have met with it once beſides in a fœtal ſubject. Whether the artery in this latter caſe paſſed between the trachea and œſophagus, or between the œſophagus and ſpine, I cannot preciſely determine, as I did not examine the parts in their natural ſituation. I was making a corroded preparation of the

fœtal

fœtal heart; and had no ſuſpicion of the peculiarity till the preparation was completed. A conſiderable ſpace was then obſervable between this extraordinary artery and the three aſcending ramifications of the aorta; and this ſpace was in the natural ſtate undoubtedly occupied by the trachea alone, or the trachea and œſophagus conjointly.

This ſecond inſtance of this remarkable luſus naturæ, diſcovered, like the former, by mere accident, may ſerve to juſtify the opinion I have juſt now given, that the occurrence probably is not extremely rare and uncommon. This is the more to be preſumed, as it is but now and then that opportunities offer for making an anatomical enquiry into the cauſes of diſeaſes; and in this particular inſtance how eaſily might the cauſe be paſſed over, even where it really did ſubſiſt? May not ſuch caſes have often been conſidered as ſpaſmodic?

I ſhall briefly collect into one view the leading characteriſtics of the dyſphagia luſoria,

ſoria, that they may be more eaſily contraſted with the ſymptoms of the ſame complaint, ariſing from different cauſes.

I. It will be found to have ſubſiſted in a ſlight degree, even from childhood.

II. There will be a progreſſive increaſe of the ſymptoms, with an occaſional aggravation from plethora, and diminution from abſtinence and evacuations.

III. The obſtruction will always happen nearly or altogether in the ſame place; namely, in the very upper part of the thorax.

IV. Let the diſtreſs in ſwallowing be ever ſo great, the food will not commonly return by the fauces.

V. and laſtly, The act of deglutition will not be accompanied with pain or ſoreneſs, but extreme anxiety and violent palpitations of the heart. Whether the pulſe in the right wriſt will be ſenſibly affected upon theſe occaſions, or whether the irregular motions

tions of the heart may make ſuch affections obſcure and indiſtinct, muſt be left to future experience to determine.

If the cauſe is aſcertained in the living body, perhaps methods might be diſcovered to prolong life, or at leaſt to render it more comfortable than it proved in the melancholy caſe before us. It is poſſible, we know, to afford ſome nouriſhment by fumes, by baths, and by clyſters; and perhaps it may be found practicable to convey nutritious fluids into the ſtomach, by means of a flexible tube paſſed beyond the obſtruction. As the parts are in a ſound ſtate, the uſe of the tube will not be attended with the ſame difficulties as in the common caſe of dyſphagia; and there is room to expect advantage from a mechanical remedy, where the complaint is derived from a mechanical cauſe, and not from real diſeaſe.

ARTICLE XXV.

Of the Cure of the Jaundice by a particular Mode of Treatment, by JAMES SIMS, M. D. F. A. S. *and President of the Medical Society.*

Read July 31ſt, 1788.

EVERY one acquainted with the jaundice, knows that it ariſes from a great variety of cauſes; and that conſequently a great variety of remedies have been recommended for its cure. The following method of treating it is however little known; the only publication concerning it being contained in the works of a late eminent and learned Divine, where few phyſicians would think of ſearching for any thing medical. I mean that beſt of men, the Reverend Philip Skelton, the adviſer of my early youth, and friend of my maturer age; the anecdotes of whoſe tranſcendent philanthropy would fill volumes; but his praiſe will be beſt known when

when the ſervile flattering monuments of time, though on the hardeſt ſtone or metal, ſhall have paſſed away. In the fifth volume of the works of that excellent man, there is ſome account of a well or pool in the county of Monaghan, famous for curing the jaundice. From this, together with my own obſervations, the following account is taken: This well, which is called Grallibois (or yellow pool) is ſituated near the public road from Clones to Monaghan; about three miles from the former. It is about a foot and half in depth, and five feet acroſs. Having no ſpring in itſelf, it is wholly ſupplied with water from a rivulet, which runs within three feet of it, and which derives its origin from an adjacent turf bog. In this pool the patient, ſtripped to his ſhirt, is ſeated, whilſt the water is plentifully heaved upon his head and body. Thus thoroughly wet, and ſtill keeping on the wet linen, he is put to bed in ſome neighbouring houſe; on which a moſt profuſe ſweat breaks out, and continues, without the uſe of any farther means, for a great many hours. The relief is often ſo ſudden, as to produce a ſtrong craving for food

as

as ſoon as he riſes from bed. This operation is repeated thrice, in order to complete the cure. There is a part of the proceſs which I have not mentioned, becauſe it may only raiſe a ſmile of ridicule; yet when we conſider the powerful effect of the imagination upon jaundiced patients, the ſuperſtitious rite of hanging up a rag torn from their clothes upon a neighbouring alder tree, may not be wholly without its uſe.

As to the efficacy of this method of cure, Mr. Skelton ſays, that "great numbers have bathed in this well for the jaundice, and been cured, from time immemorial (to his certain knowledge, for more than forty years) after trying all other methods recommended by their friends and phyſicians, but in vain. There is not a year wherein cures enough are not performed here, to give this water a vogue ſuperior to all other remedies in this diſorder, had it never been reſorted to before. People of all ranks and conditions, and under all circumſtances and ſtages of the diſorder, excepting ſuch as are far gone in a black jaundice, come hither extremely

ill, and go away in a few days perfectly well. The notoriety of this is ſo eſtabliſhed throughout the whole country, for twenty miles round (and to a much greater diſtance among the acquaintances of ſuch as have come from other countries to be cured) that it is wholly needleſs to aſſign particular inſtances. A very great number fell within his own knowledge; and ſome of perſons who were growing black. He adds, " that not one of the patients who have gone thro' with this extraordinary method of cure, ever complains of the ſlighteſt cold in conſequence of it; and that the " facts in this narrative are inconteſtibly and notoriouſly true."

As to my own knowledge of this well, I muſt remark, that, living out of the ſphere of its fame, and not being ſo ſanguine in my expectations of its efficacy as my late worthy friend, I had not many inſtances of its virtue that came within my own obſervation; and as theſe were not attended with any thing uncommon, I ſhall forbear mentioning them; but ſhall give two inſtances where different

different water was ſucceſsfully uſed in a ſimilar way. Having, wherever I heard this pool mentioned, given it as my opinion that bog water, or perhaps any ſoft water uſed in a ſimilar manner, would have the ſame effect, a lady, who was applied to by a poor neighbour for money to carry her jaundiced child to Grallibois, was induced to try the experiment: ſhe therefore told the poor perſon that ſhe had a quantity of the water in her houſe, and ſent her a number of bottles of bog water carefully ſealed; which, on being uſed in the manner already directed, had the deſired effect. This juſtifiable deception has been, I ſince find, practiſed more than once with the beſt ſucceſs. The other inſtance could not be ſo managed. A middle-aged man, who applied to me in a moſt inveterate jaundice, wiſhed to go to the well, but had neither means nor ſtrength to undertake the journey. I told him my opinion as to common bog water; and at laſt prevailed upon him to try it. I recollect that the ſweat produced each time of bathing was the moſt copious I had ever known, and laſted for eighteen hours; and in the

end, he got rid of a diſeaſe which I looked upon as incurable.

ARTICLE XXVI.

Medical Cautions and Remarks, particularly relative to Pulmonary Diſorders; by THOMAS PERCIVAL, M. D. F. R. S. A. S. *and* C. M. S. *London;* F. R. S. *and* R. M. S. *Edinburgh; Member of the Royal Society of Medicine at Paris; of the Royal Society of Agriculture at Lyons; and of the American Philoſophical Society at Philadelphia. Communicated by* J. C. LETTSOM, M. D. *&c.*

Read Auguſt 11, 1788.

NE QUID FALSI DICERE AUDEAT; NE QUID VERI NON AUDEAT.

CICERO.

SUCCESS in the alleviation, or removal of pain and ſickneſs, is ſo pleaſing to humanity, that it is always recorded with ſatisfaction, and received with applauſe. We cannot wonder, therefore, at the numerous recitals

recitals of it in the annals of phyfic; whilft difappointment is rarely mentioned, and error is affiduoufly concealed. Yet though the profeffors of the healing art are acknowledged to hold the firft rank in erudition, they have affuredly no claim to infallibility; nor does it imply difparagement to affert, that the farther their knowledge and experience are enlarged, the more they will perceive and lament the imperfection of fcience, and the inefficacy of medicine. Credulity is often fucceeded by fcepticifm; and the young phyfician, who repeatedly feels his benevolence fruftrated, and his confidence deceived, may be tempted either to relinquifh his profeffion, or fordidly to purfue it for the emoluments only which it yields. A candid avowal of fimilar mortifications, by thofe who are more advanced in practice, would tend to fatisfy the mind, to reftrain unreafonable expectations of fuccefs, and even to promote it powerfully, though indirectly, by pointing out the way in which it is not to be attained. Many of the principles of phyfic may be deemed demonftrative; but the application of them refts on no other evidence than probability.

bability. In different caſes this evidence varies in degree; and we are juſtified in acting according to that degree which every individual caſe affords. The ſame obſervation may be extended to politics and morality; ſciences which are often clearly underſtood in theory, but egregiouſly miſuſed in the conduct of life. In the ſtudy of the human frame, either corporeal or mental, we proceed analytically, diſſecting the ſeveral parts of which it conſiſts, and diſcriminating their properties, relations, and dependencies. But it is by the contrary proceſs that we form maxims of behaviour, moral judgments, and therapeutic rules; and it ſometimes requires the moſt comprehenſive knowledge, united with the acuteſt diſcernment, to deduce juſt concluſions from premiſes at once intricate and multifarious. As the philoſopher and politician therefore may, without a bluſh, confeſs their miſtakes concerning characters, actions, and events; ſo the phyſician ought to indulge no apprehenſion of doing injury to his own reputation, or to that of another, by revealing, on proper occaſions, profeſſional diſappointments. Cæſar has related

lated the faults committed by him in the wars of Gaul; Frederick the Great, of Pruſſia, has followed this noble example of candour and public ſpirit; and Hippocrates, who, as a benefactor to mankind, ranks higher than either of them, records a dangerous error into which he had fallen, that his contemporaries and poſterity might guard againſt it *. But without pleading further arguments or authorities, I ſhall lay before the Medical Society a few cautions and remarks; aſſured of indulgence in that freedom which is warranted by good intention and the love of truth.

A phyſician of probity will feel himſelf accountable for the omiſſions, as well as commiſſions, which may occur in the courſe of his practice; ſince ſucceſs or diſappoint-

* Auturis ſe deceptum eſſe Hippocrates memoriæ tradidit, more ſcilicet magnorum virorum, et fiduciam magnarum rerum habentium. Nam levia ingenia, quia nihil habent, nihil ſibi detrahunt. Magno ingenio, multaque nihilominus habituro, convenit etiam ſemper veri erroris confeſſio; præcipueque in eo miniſterio, quod utilitatis cauſa poſteris traditur; ne qui decipiantur eadem ratione, qua quis ante deceptus eſt. CELS. lib. viii. cap. 4.

 ment,

ment, recovery or death, may be the reſult of the one as well as of the other. Several years ago I attended a gentleman labouring under a peripneumony; he was very corpulent; and the difficulty of breathing and inflammatory ſymptoms required immediate venæſection. The ſurgeon, though a man of ſkill in his profeſſion, twice attempted, without effect, to open a vein in the arm. He then bound up the other arm; but juſt as the point of the lancet was applied to make the orifice, the patient ſtruggled a few ſeconds, and expired. The uſual means of reſtoring animation were tried to no purpoſe; and I was ſhocked with the information, communicated too late, that the gentleman had always a ſtrong dread of phlebotomy; to the terrors of which operation, life, in this inſtance, was probably ſacrificed. So melancholy an example, I truſt, will ever make me attentive to enquire into the feelings and emotions of my patients, in critical circumſtances, as well as into the ſymptoms of their diſeaſes.

Whenever bleeding is thought expedient in delicate and debilitated ſubjects, which it

is too often ſuppoſed to be, in caſes of pulmonary conſumption, if great timidity prevail, it ought to be deemed a ſufficient contra-indication. I have ſeen a rigor of ſeveral hours continuance, and extreme proſtration of ſtrength, ſucceed the loſs of only two ounces of blood, in a lady who dreaded the lancet; though ſhe affected to ſubmit to it with magnanimity. Indeed this very effort might contribute to the injury, by being too great for her feeble frame of mind and body. The like obſervation may be applied to the uſe of voyages in this malady. Such a mean of cure ſhould only be recommended when there can be full confidence that the patient is equal to the fatigues, and not diſpoſed to be affected by the terrors of it *. On the ſame grounds

* It has lately been aſſerted by Doctor Carmichael Smyth, in his account of the effects of ſwinging, that the ſea air is prejudicial to the hectic and conſumptive, and even to thoſe who have any tendency to ſuch complaints. In ſome inſtances my experience has been conſonant; in others, contradictory to his obſervation. The truth is, phthiſis pulmonalis attacks very different conſtitutions, and originates from different cauſes. When labouring under a dyſpnœa, many years ago, the conſequence of an hæmoptoe, I went to Scarborough for

grounds of reafon and humanity, long and painful journies to Briftol, Matlock, and other places of refort, are to be adopted with caution. Change of air and of place is often ufeful in this complaint; and I have generally obferved it to be moft fuccefsful when the medicina mentis has been the principal object of it. There is a languor, an impatience, and irritability attendant on fuch invalids, which is wonderfully alleviated by the charms of variety, and the foothing influence of rural fcenery. When a journey therefore is directed, the patient fhould make frequent ftops, and reft feveral days at once, in fuch falubrious fituations as furnifh comfortable accommodation, and pleafing views of nature. A plan like this is perfectly compatible with that gentle, moderate regimen of diet and of phyfic, which experience inftructs us to be moft appropriate to the feve-

for the benefit of the fea air. Riding on the beach always irritated my lungs, and encreafed the difficulty of breathing. I could fenfibly perceive the acrimony of the vapours which I infpired; but on the hills near Scarborough, and on any fituation where the peculiar odour of the fhore was not perceptible, I felt refrefhment from every breeze which blew from the ocean.

ral

ral ſtages of the phthiſis pulmonalis. The extreme antiphlogiſtic method of treatment I have often obſerved to aggravate the ſufferings of the patient, and to accelerate his death. In this malady, inflammation is, perhaps, only an occaſional concomitant; for the tubercles in the cellular ſubſtance of the lungs are found to be of a whitiſh colour and cartilaginous hardneſs, and to remain ſolid till they attain a certain ſize. Matter then begins to be formed in their center. As they grow larger, ſuppuration advances till they are converted into vomicæ; but theſe retain their white colour and hard texture, and no blood-veſſels are to be ſeen upon them, even when examined by a microſcope, after injecting the lungs from the pulmonary artery and vein *. The ingenious phyſician, to whom we are indebted for ſo intereſting an inveſtigation, hath, however, informed us, that tubercles, when of a certain bulk, and vomicæ alſo, render the portion of the lungs contiguous to them red, ſometimes hard, impervious to air, and conſequently unfit for

* See the valuable extracts from Dr. Stark's manuſcript Medical Communications, vol. i. p. 390.

reſpiration.

respiration. In the state described, local inflammation certainly subsists; yet from long and extensive experience I have found that it does not often manifest itself in the humid climate of Lancashire, by such paroxysms of genuine peripneumonic fever as require venæsection, or the more active refrigerant medicines. The degree of hectic heat is a fallacious criterion of the propriety of bloodletting; and I have observed it to be generally augmented by that evacuation, when the patient is of a strumous habit; when the hair falls off, the nails grow rapidly, and a considerable wasting of the flesh and strength prevails. Under such circumstances also I have felt painful disappointments in the use of nitre; the effects of which, as a febrifuge, can only be ascertained by those who have had opportunities of attending to its subsequent, as well as immediate operation. A youth in my family, some time ago, had all the symptoms of a true hectic; and as I then entertained a favourable opinion of this remedy, I repeatedly administered it to him in the dose of fifteen grains. The pulse was usually reduced by it from 110 to 90 strokes in

a minute,

a minute, for the ſpace of about a quarter of an hour; that is, whilſt the ſtomach remained ſenſible to the ſedative powers of the ſalt. But a re-action ſoon ſucceeded in the ſyſtem, and the pulſe was frequently quickened to 130 vibrations, continuing in the accelerated much longer than in the retarded ſtate; and always ſuffering a permanent diminution of ſtrength. In caſes of this kind, certain medicines of the tonic claſs prove eventually antiphlogiſtic. A young lady, aged ſixteen, nearly related to me, was in the ſpring of 1785 affected with pulmonic complaints, which threatened a phthiſis. As they were accompanied with great languor and debility, I gave her a ſolution of twelve grains of myrrh, every ſix hours, in a ſaline effervеſcing draught; marking the effect on the pulſe with anxious attention.—I ſhall tranſcribe from my notes only the firſt obſervation which I made, becauſe each ſubſequent one was ſimilar in reſult. April the 20th, half paſt ſeven o'clock in the evening, pulſe 120, feeble; the draught adminiſtered. Ten minutes before eight, pulſe 98, ſtronger and fuller; half paſt eight, pulſe 100. By perſeverance

perſeverance in the uſe of this remedy, and other auxiliary means, the young lady happily recovered her health and ſtrength. Camphor has been juſtly recommended in the phthiſis pulmonalis; but ſhould be given in ſuch ſmall doſes as not to offend the ſtomach. It combines perfectly with myrrh; and, notwithſtanding its ſuppoſed heating quality, perhaps acts rather as a ſedative than a ſtimulant on the arterial ſyſtem; as ſeems to be evinced by the following curious fact, communicated to me by my late friend Dr. Dobſon. "In June 1780, three drachms of camphor were adminiſtered to a maniacal patient, in doſes of one ſcruple, within the ſpace of twenty-four hours. The pulſe was reduced from 80 to 70 ſtrokes in a minute; and the mania was mitigated. The ſucceeding day, the ſame quantity was given in twelve hours. Profuſe ſweatings and great itching enſued; the pulſe ſunk to 55; and the mania was cured." In the treatment of pulmonic diſorders, particular attention ſhould always be paid to the reciprocal ſympathy which ſubſiſts between the ſtomach, the lungs, and the heart. Whatever occaſions

occaſions an agreeable ſenſation in the organs of digeſtion, and at the ſame time gives a gentle degree of tone to them, will tend to abate the velocity of the pulſe, and to check the violence and frequency of coughing. Porter, on theſe accounts, often proves a grateful and ſalutary beverage; and affords peculiar ſupport and refreſhment under colliquative ſweats*: but we cannot, from the ſenſible qualities alone of the ſubſtances to be adminiſtered, aſcertain their operation on this delicate organ, liable perhaps, in ſuch affections, to peculiar and anomalous feelings. Indeed the action of moſt medicines on the human body, is rather relative than abſolute; and cooling or heating, ſedative or ſtimulant, are in many inſtances convertible powers when applied to different maladies, or to diverſified ſtates of the nervous ſyſtem. A gentleman of rank, in this county, was ſuppoſed to be in an advanced ſtage of what is termed a galloping conſumption, having an inceſſant cough, an

* The colliquative ſweats of the phthiſis pulmonalis are much alleviated by the uſe of a calico waiſtcoat or ſhirt, which has been ſteeped in a ſtrong decoction of the bark. It ſhould be well dried, and daily renewed.

expectoration

expectoration apparently purulent, continued heats, and night ſweats; yet his cure was accompliſhed by giving wine-whey copiouſly, and by adminiſtering large doſes of ſalt of hartſhorn with ſpermaceti. A very low regimen had been directed by his phyſicians. The cordial was once adopted by degrees, and with a cautious obſervance of its effects; which happily proved to be a progreſſive abatement of the fever, cough, and ſpitting, a gentle fit of the gout, to which the patient had formerly been ſubject, and the perfect re-eſtabliſhment of his health.

In a curious fact, recorded by Dr. Mead, there appears to have been an interchangeable relation between lunacy and the phthiſis pulmonalis; the latter being cured by the acceſſion of the former malady, and recurring as ſoon as the brain was reſtored to its natural functions*. I have received authentic information

* Since this paper was written, the following intereſting fact has occurred in my practice. Mr. C—'s daughter, aged nine years, after labouring under the ſymptoms of phthiſis pulmonalis four months, was affected with unuſual pains in her head. Theſe rapidly increaſed to

information of a ſtate of fatuity ſubſiſting from infancy, and nearly approaching to idiotiſm, that, after thirty-four years, terminated in a conſumption of the lungs; towards the fatal cloſe of which the patient diſplayed a degree of intellectual vigour, aſtoniſhing to her family and friends, and not leſs ſo to a learned and judicious clergyman, who viſited her officially, and who communicated this account to me. Indeed, in a true hectic fever, the mental powers are generally in a ſtate of improvement; and it is the lively perception of it which probably excites thoſe emotions of hope that afford ſuch ſeaſonable ſupport and conſolation to the ſufferer. Whereas imbecility of mind, when not accompanied with torpor, is always characterized by dejection and deſpair.

to ſuch a degree as to occaſion frequent ſcreamings. The cough, which had before been extremely violent, and was attended with ſtitches in the breaſt, now abated; and in a few days ceaſed almoſt entirely. The pupils of the eyes became dilated; a ſtrabiſmus enſued; and in about a week, death put a period to her agonies. Whether this affection of the head aroſe from the effuſion of water or of blood, is uncertain; but its influence on the ſtate of the lungs is worthy of notice.

 The

The pathology of the pulmonary consumption is not yet ascertained, as will appear from a review of the discordant opinions of numberless writers, from the time of Hippocrates to the present period. The following propositions may, perhaps, lead to a more successful investigation of this interesting subject.

Consumption, when it originates from what is termed a severe cold, is generally preceded by a catarrhal inflammation and fever.

This fever subsides, but the cough continues; tubercles are formed; and a different species of fever, or the true hectic, takes place.

The progress to this second stage is frequently so slow and gradual, as not to be much noticed; yet the hectic symptoms, when they occur, are more violent; the prostration of strength, marasmus, colliquative sweats, and diarrhœa, advance with greater rapidity, and terminate sooner in death.

death. In fuch cafes the patients are generally of a ftrumous habit.

Tubercles and vomicæ probably conftitute the characteriftics of the diforder in every form; and in their action they feem to bear fome flight analogy to the ulcers, or gangrene of the throat, in the angina maligna. They produce a contamination of the parts which are contiguous to them; excite inflammation in the lungs, and a local difpofition to fphacelus; generate a purulent matter, often of an acrimonious quality; and deftroy the vital energy by a fever of a peculiar type.

In the treatment of hæmoptyfis, the antiphlogiftic plan is now generally adopted in moft parts of England; and during the incipient ftage of the diforder, when the inflammatory diathefis commonly prevails, much injury may be done by heating ftyptics and rough aftringents: but during its progrefs the type is often changed; and many cafes occur, which even in their commencement indicate great laxity of the folids, and tenuity of the fluids. Under fuch circumftances, venæfection, nitre, and the debilitating clafs of

medicines, are highly improper; though great authorities have ſanctioned their uſe without ſufficient diſcrimination. When the diſcharge of blood has continued ſome time, a new ſtate of the ſyſtem is induced; the heart and arteries ſeem to loſe their due degree of tone; an increaſed irritability takes place in the ruptured veſſel, and in thoſe which are contiguous to it; and thus the impetus of the circulation is partially augmented, with a diminution of its general energy. Remedies, therefore, which rouſe the vital powers, and excite an equable action in the vaſcular ſyſtem, are clearly indicated. A bliſter applied to the back has ſtopped a naſal hæmorrhage; wine drank to intoxication has cured both hæmaturia and hæmoptyſis, when other means have failed; and the following fact proves the efficacy of opium in the malady under conſideration. Mrs. ——, when about thirty-eight years of age, was attacked with an hæmoptoe. It was ſuppoſed to originate from violent retchings; and was afterwards increaſed by cloſe confinement, and long attendance on a ſick child. The quantity diſcharged from the lungs was from ſix to ten ounces daily, during the ſpace of more than

two

two months. All the uſual means of relief proving ineffectual, and her fleſh and ſtrength declining rapidly, the trial of opium was recommended, and happily adopted. She began with taking a grain of thebaic extract every twelfth hour, and by degrees increaſed each doſe to ten grains; ſo that for a long time ſhe had a ſcruple of opium adminiſtered to her daily. The hæmorrhage quickly abated after the commencement of this courſe; and by perſeverance in it, ceaſed altogether: but on any omiſſion of the uſe of opium ſhe was threatened with a recurrence of the diſorder, as ſhe has been neceſſitated to continue the remedy for nine years; and at this time, Auguſt 1787, takes ten grains every twenty-four hours.

The uſe of the pediluvium in hæmorrhages has often been recommended; but with a reſtriction that its temperature ſhall not exceed 96 or 100 degrees of Fahrenheit's thermometer. This prohibition is not well founded, if a ſtimulant be required. When I have occaſion to bathe my feet for the head-ach, the water which I uſe is generally as hot as I can

bear it to be; and the ſenſation which it firſt produces is that of univerſal chillineſs, attended with rigor. A glow of warmth ſucceeds, and afterwards a gentle perſpiration; but the addition of more hot water renews, in a ſlighter degree, a momentary feeling of cold. It is obvious that ſuch an operation would be favourable in ſome caſes of hæmorrhage. How is the chilling ſenſation to be explained? Does the partial ſtimulus of heat, like that of cold, contract, in its firſt operation, the ſmall cutaneous veſſels?

In America, the treatment of hæmoptyſis widely differs from that which is practiſed in this country. Dr. Ruſh informs me, that common ſalt is the remedy univerſally employed; that it is adminiſtered in large ſpoonfuls, in a dry form; and that its ſalutary effects are ſudden, and for the moſt part certain. In a letter, dated Philadelphia, February 16, 1788, he ſays,

"I am ſorry to find that you entertain a ſingle doubt of the ſafety or efficacy of common ſalt in hæmoptyſis. I could ſend you above

above a hundred cafes that eftablifh both. My own would be one of them. On the 2d of April 1766, I was feized with this diforder. It came on in the middle of the night, and for a while was attended with alarming fymptoms. I took a table-fpoonful of fine Liverpool falt, and immediately the hæmorrhage was checked. It excited a burning fenfation in my throat, that gave me fome pain; but this pain was probably part of the remedy the falt afforded. To prevent a return of the diforder, as my pulfe was full I loft ten ounces of blood, and lived a few weeks on a vegetable diet. After this I took red bark, from which I derived great benefit; and have never fince had the leaft return of hæmoptyfis."

Salt is frequently applied, in this country, to external wounds as a ftyptic. In fpittings of blood, therefore, which originate about the fauces, it may act in the fame way. But fuch are not the cafes to which Dr. Rufh refers; and fo judicious and experienced a phyfician could not miftake the fpurious for the genuine hæmoptyfis. Whether the

American practice be adopted amongſt us or not, we ſhall at leaſt be warranted by it to urge more circumſpection and diſcrimination in the uſe of phlebotomy and refrigerants *.

* The action of elementary ſalt, and of nitre, in large doſes, is very poſſible. In a ſingular worm caſe, recorded by Dr. Heberden (ſee Medical Tranſactions, vol. i. p. 54.) two pounds of common ſalt, diſſolved in two quarts of ſpring water, were taken within the ſpace of an hour. Great oppreſſion of the ſtomach ſoon occurred. Sickneſs, vomiting, purging, ſweating, rawneſs, and ſoreneſs of the alimentary canal, thirſt and ſtrangury enſued. But theſe diſtreſſing ſymptoms were of ſhort continuance. In June 1780, an elderly gentlewoman took about an ounce of nitre, diſſolved in warm water, inſtead of Glauber's ſalts. The œſophagus, cardia, and ſtomach, were almoſt inſtantly affected with ſevere pain. In a few minutes ſhe perceived the miſtake which had been made. A ſpoonful of ſweet oil was given; and afterwards repeated draughts of camomile tea were adminiſtered. Vomiting enſued; and ſhe diſcharged a conſiderable quantity of ſtrongly coagulated and very ponderous phlegm. The next day I was conſulted, but did not ſee her. The pain in her ſtomach remained. She had a conſtant nauſea, and felt great languor; but had neither rigour, ſweating, looſeneſs, nor increaſed diſcharge of urine. Demulcent diet, and a cordial and anodyne mixture ſoon reſtored her health.

ARTICLE XXVII.

Case of a diseased Rectum, by J. C. Lettsom, M. D. *&c. with a Dissection by* W. Norris, *Surgeon, and* F. M. S. *and a Drawing by* T. Pole, *Surgeon, and* F. M. S.

Read July 21, 1788.

W. H. Esquire, the subject of the present history, was a gentleman of great regularity in his mode of living. For some years previous to his indisposition, he had relaxed from his duty as the treasurer of a great trading company, to the indulgence of a country-house, for at least a small portion of the week. His diet was uniformly temperate. He drank but little; he took, however, a little brandy and water daily, at dinner and supper, without being sensible of any inconvenience from it, as he enjoyed good health till his 66th year, when he felt a slight indisposition, which he thought arose from flatulence in the intestines. This was in

in 1786, at which time he conſulted my friend Sherwen of Enfield, ſurgeon, who, by regulating the excretions, and occaſionally adminiſtering preparations of bark, and other bitters, preſerved the patient in a degree of comfort that rendered his life eaſy during that year. Early in 1787, the complaint in the bowels became painfully troubleſome, which encreaſing gradually, he conſulted me about the Midſummer of the ſame year, at the requeſt of his judicious ſurgeon; who then informed me, that he ſuſpected a ſcirrhous rectum.

At my firſt attendance he complained chiefly of a ſenſe of wind inflating the lower inteſtines, which he ſaid obliged him to get up early every morning, under an idea of wanting to go to ſtool; but that ſcarcely ever any thing was diſcharged except wind. Sometimes, however, a little fæces was rapidly diſcharged, with an exploſion, as he expreſſed it, like that of a gun, from the exit of a large quantity of wind. This kind of teneſmus uſually diſturbed him about four o'clock in the morning; after which hour the

the calls were fo frequent, that he became fearful of admitting fleep, or laying in bed afterwards, as the propenfity to ftool followed him nearly every half hour, and continued ufually till nine or ten in the morning; from which hour he was pretty free from any complaint during the day, which enabled him to go abroad, and to difcharge the duties of his public office.

With the efforts accompanying the tenefmus he ufually had two or three ftools every day; thefe, like the difcharges of wind, produced a fudden propenfity to go to ftool.

He took at different times columbo and other bitters, cicuta, elixir of vitriol, and different reftringents; but thefe affording no benefit, emollients and anodynes were fubftituted with advantage. By the aid of fmall dofes of thebaic tincture he had more reft, and was enabled to keep his bed for the fpace of three hours longer in the morning; but the flatulent tenefmus was never totally removed; though the ftools, which before were thin

thin and watery, acquired a little consistence; and he had more command of retention. His appetite, however, began to fail, and he daily lost flesh. In hopes of improving his health, he retired to his house in the country for a month. At this time I advised his surgeon to give hemlock clysters twice a day, and to attempt by a sponge-bougie to dilate the suspected scirrho-contracted rectum. The clysters were soon relinquished from the pain they occasioned, joined to the obstacle of the patient's delicacy. The bougie could only once be attempted, from sufferings which he expressed by being impaled alive. In September he returned to town, both weaker and more emaciated in body. The appetite for food, and the quantity taken, were diminished. I now relinquished all expectation of a cure, and reconciled my patient to continue that medicine from which he experienced the most relief; which was a solution of spermaceti, with thebaic tincture. A little laudanum composed him; so that he never took more than from 20 to 30 drops in 24 hours.

From

From this period to the end of the year, a gradual decline continued, till in January 1788, he was almoſt entirely confined to his bed, except when taken out of it to the cloſe-ſtool; and now, in ſpite of the opium, he ſuffered much from diarrhæa, the ſtools occurring at leaſt every hour, conſiſting of a bilious watery nature, of a deep brown, and ſometimes more dark colour. Theſe evacuations were often copious; whilſt at the ſame time very little nouriſhment was taken, and this chiefly fluid. His ſtrength now rapidly diminiſhed; but what added ſtill more forcibly to ſink it, were rigors, which firſt came on early in November, and recurred about once in the week; and in January 1788, once in three or four days they were ſucceeded by hot fits and colliquative ſweats, which together laſted each time nearly twelve hours. At length, on the 5th of February he expired in one of the paroxyſms, with his intellects compoſed to the end of his life.

On the 7th of February I attended the opening of the patient, by W. Norris and T. Pole, ſurgeons; to whoſe aſſiſtance I am indebted

indebted for the following hiſtory of the diſſection; and to the latter for a drawing of the diſeaſed rectum.

On opening the abdomen, the omentum was obſerved to cover the inteſtines in an uncommonly ſmooth and uniform manner; which was owing to an adheſion between its lower extremity and the peritonæum, juſt above the pubes. This adheſion was not the conſequence of any recent inflammation. All the inteſtines were perfectly ſound except the rectum, which was long known to be in a diſeaſed ſtate; and which for a more accurate inſpection we entirely removed from the pelvis. For this purpoſe the colon was divided at its lower end; and upon gently elevating the rectum, the more eaſily to ſeparate it from the ſacrum and coccyx, its ſides gave way, and it tore like wet paper. This was immediately followed by a diſcharge of an offenſive ſanious matter, mixed with ſome ſteatomatous lumps. This diſeaſe of the rectum commenced about an inch and a half from the anus, with a ſtricture and thickening of the coats of the gut,

and

and extended about ſix inches. The cellular membrane connecting the rectum to the ſacrum and coccyx, and alſo to the veſica urinaria, was likewiſe indurated and much diſeaſed. The kidnies, eſpecially the left, were large and flabby, and had many hydatids on their outer ſurface; but appeared in other reſpects perfectly ſound.

The texture of the ſmall lobe of the liver, and almoſt the whole of its ſubſtance, was deſtroyed by a large abſceſs, which was juſt ready to burſt into the abdomen, and which contained a pure *white pus.* This is, I believe, an uncommon appearance, as all other liver abſceſſes that I have ſeen contained a curdled matter of a variety of colours; the moſt predominant of which was dark brown.

The gall bladder was enlarged to about twice its natural ſize, though not turgid with bile; and when filled with air, meaſured five inches and an half in length. The cellular membrane between its coats was emphyſematous.

The

The ſuppuration in the liver probably occaſioned the rigors that came on early in November.

Either the diſeaſe of this poor gentleman's rectum, or that of his liver, ſeemed alone fully equal to produce death; and it is ſurpriſing that nature could hold out ſo long againſt both united.

EXPLANATION OF THE PLATE;

Giving a view of the internal ſurface of the rectum, by means of a longitudinal inciſion made poſteriorly, and of the enlarged and diſtorted gall-bladder.

The FIGURE is reduced one third of its original ſize.

A. The ſuperior extremity of the rectum ſeparated from the colon.

B. The anus.

C. A prominence occaſioned by the urinary bladder, which is lying collapſed under that part of the rectum.

D. An ulcerated communication between the rectum and urinary bladder.

E. That part of the rectum which tore in raiſing it up from the ſacrum.

F. F. Ulcerated perforations in the rectum.

G. G. The moſt diſeaſed part of the gut.

ARTICLE

Fig.1

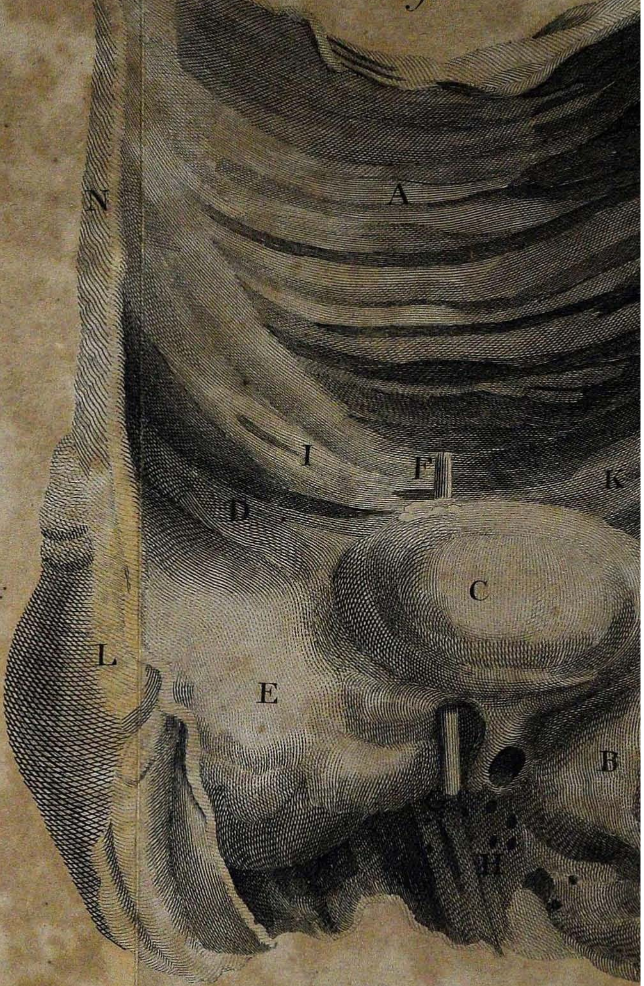


Fig.2

ARTICLE XXVIII.

Remarks on the Solvent Powers of Camphor, by WILLIAM CHAMBERLAINE, *Surgeon, and Secretary of the Medical Society of London.*

Read October 8, 1787.

THE obſervations on the ſolvent power of camphor, on certain reſinous ſubſtances, contained in the miſcellaneous memoir of the ingenious Dr. Percival *, explained to me an incident which happened ſome time ago, and which, until now, I was at a loſs to account for; and alſo induced me to make trial of the effects of camphor on different gums and reſinous ſubſtances; the reſult of which trials are now ſubmitted to the Society.

Six grains of camphor, and twelve grains of gum maſtich, with twelve grains of ſtrained

* See page 54 of theſe Memoirs.

 opium,

opium, ſufficiently ſoft to make the whole into a pilular conſiſtence without the addition of a liquid, were well triturated in a mortar, and formed into middle-ſized pills, which, though very ſoft while under the finger, ſoon attained a conſiderable degree of hardneſs, and retained both their form and hardneſs for upwards of a twelvemonth; but afterwards, ſuddenly, without being expoſed either to heat or dampneſs, the pills cohered, ſoon loſt their form, and in a very ſhort ſpace of time the whole maſs became ſoft, and aſſumed the appearance of a lump of pitch.

This incident, as I have already ſaid, I was at a loſs to account for, as I never had paid any attention to the ſolvent property of camphor; but ſince the peruſal of Dr. Percival's paper, I can no longer doubt it was owing to this property that the change above recited took place. May we not ſuppoſe, that the reaſon why this change did not occur ſooner, was becauſe the aqueous particles contained in the opium prevented the action of the camphor until their evaporation was completed?

The

The trials made on different ſubſtances, joined with camphor, were as follow:

I. Ten grains of the pureſt myrrh were triturated with two grains of camphor, and an ounce of diſtilled water added *gradatim*.

II. Ten grains of myrrh of equal purity*, without any camphor, were triturated with one ounce of diſtilled water, gradually poured on.

The reſult of theſe two experiments was preciſely the ſame as mentioned by Doctor Percival. Both mixtures for the firſt three days were exactly alike; on the fourth the ſimple mixture was evidently more watery near the ſurface than that with the camphor, which retained its uniform milky appearance throughout. Very little ſediment was depoſited in either of the phials; but the ſediment in the camphorated mixture was finer, whiter, and in leſs quantity than the other.

* Particular attention was paid to the choice of the myrrh uſed in this experiment. One of the pureſt tears that could be picked out from a large parcel was ſelected, and divided into two equal parts.

 III. Ten

III. Ten grains of balſam of Tolu, with the ſame quantity of camphor, triturated firſt ſeparately, then together, became in a ſhort time very ſoft: the maſs, after being formed into a bolus, was put into a chip box. In two or three days it had liquefied ſo much, as partly to exſude through the crevices in the bottom of the box, and appeared like common treacle; a ſmall quantity of fæces (the impurity of the balſam) being depoſited.

IV. Ten grains of balſam of Tolu were well triturated with only two grains of camphor, until moderately ſoft. Leſt it might be ſuſpected that heat, ariſing from the briſkneſs of the triture, ſhould contribute to ſoften the maſs, cold water was poured *gradatim* on the mixture. This addition of cold water did not appear either to retard or promote the ſolution. The trituration was continued until the maſs was ſo far ſoftened as to be like a thin paſte or mucilage, which (the water being poured off) was put into a chip box, where it ſpread itſelf at the bottom; and ſtill retains a conſiderable degree of ſoftneſs, though not ſo ſoft as when firſt put in.

V. Equal

V. Equal parts of gum benzoin and camphor triturated together, and formed into a bolus, ſoon loſt the round form, liquefied, and ſpread at the bottom of the pill-box; acquiring a conſiderable degree of tranſparency.

VI. A pill made of camphor and gum guaiacum, of each ten grains, was very ſoft at firſt. The pill was flatted after it had lain in the box for ſome hours, but did not entirely loſe its form; nor did it remain quite ſo ſoft as it was when firſt formed.

VII. G. Segapenum and camphor, ana. p. æ. were next in degree of ſoftneſs.

VIII. Equal parts of gum maſtich and camphor loſt the pilular form, and ſpread at the bottom of the box.

IX. Camphor and gum ammoniac, ana. gr. x. were nearly as ſoft as the former, and retained the ſame degree of ſoftneſs for a long time.

X. Camphor and ſanguis draconis were next.

XI. Ten grains of myrrh, with only *two* grains of camphor, were rubbed together until moderately ſoft: when worked between the fingers, the maſs appeared like good moiſt Muſcovado ſugar. It crumbled, and was with difficulty made into a bolus; leaving an oilineſs on the fingers. The bolus was found next day a little flattened, and had loſt its ſoftneſs in ſome degree.

XII. A pill of equal parts of camphor and aſafœtida retained its round form, remaining moderately ſoft.

XIII. Camphor and olibanum, p. æ. ſoft at firſt, became very hard.

XIV. Camphor and gamboge, of each ten grains, after being rubbed together a long time, ſtill remained in the form of a dry powder; but the powder being put into a pill-box, was found in three days to have coaleſced,

coaleſced, and was ſo ſoft as to be formed into a pill without crumbling.

XV. Gum arabic and gum tragacanth, finely powdered, were not acted on by camphor *.

To whatever purpoſes, in pharmacy or chemiſtry, a knowledge of the active powers of camphor on certain reſinous ſubſtances may hereafter be applied, there is, in the pharmaceutical practice of the preſent day, one inſtance at leaſt wherein it may perhaps be found uſeful.

The camphorated julep of the late and preſent London Pharmacopœias, is thus made:

> "Take of camphor one drachm, double refined ſugar half an ounce, boiling water one pint. Rub the camphor firſt with a little rectified ſpirit

* The boxes, &c. containing the different ſubjects of the above experiments, were produced before the Medical Society when this paper was read.

ſpirit of wine *, then with the ſugar; laſtly, add the water by degrees, and ſtrain the mixture."

If it be required to give little more than the *flavour* of the camphor to the mixture, this formula may anſwer well enough; but if, on the contrary, the practitioner places his chief confidence in the camphor, he muſt rather preſcribe it in the form of a bolus or pill, which may in ſome particular circumſtances, either through the patient's diſlike to theſe forms, or for other reaſons, be objected to; for ſhould he expect effects from the camphor which enters the compoſition of the julep, as now directed, on a ſuppoſition that it ought to contain the whole quantity preſcribed, which is three grains, and three-fourths of a grain, to an ounce, he will be egregiouſly diſappointed; becauſe, as Dr. Lewis has obſerved, " part of the camphor will exhale, unleſs an extraordinary deal of care is taken, upon the affuſion of boiling

* The new edition of the London Pharmacopœia ſpecifies the proportion of ſp. vin. rect. to be ten drops for the above quantity.

water;

water; and part will remain upon the ſtrainer *."

In order to aſcertain how much of this ſubſtance may be reaſonably ſuppoſed to enter the camphorated julep, I prepared eight ounces of it, according to the new pharmacopœia, with all poſſible nicety and exactneſs; giving all the fair play that I could to the camphor. I then filtered the mixture through a piece of paper, accurately weighing one drachm. Sixteen hours afterwards I weighed the paper, then *perfectly dry*, and containing only the camphor left behind by the water. The weight of the whole was now one drachm and 25 grains; ſo that there remained on the filter 25 grains of camphor out of half a drachm; and if we allow but a ſingle grain for what might have exhaled in the time of preparing the mixture, and in the ſixteen hours drying, the remaining proportion is only four grains; which is but half a grain to each ounce of the mixture, inſtead of three grains and three quarters.

* Lewis's Diſpenſatory, chap. viii. p. 609.

I then

I then took four grains of myrrh, and triturated them with four grains of camphor, adding by degrees an ounce of common water; which gave a mixture perfectly ſmooth, milky, and uniform.

This I attempted to paſs through ſome Dutch paper, ſuch as the pill-boxes are packed in, which is more porous than the common filtering paper; but after ſtanding ſixteen hours, not more than one-third had paſſed the ſtrainer, which, with what remained in the paper, continued as perfectly milky and uniform as at firſt; the latter having depoſited very little ſediment, and that which had gone through, none at all. The paper, after being thoroughly dried, was ſomething leſs than one grain heavier than at firſt.

It will not then, I preſume, be deemed an unfair ſtatement, to ſay that, in this latter proceſs, the whole quantity of the camphor employed is uniformly ſuſpended in, nay, united with, the aqueous fluid, by the medium of the myrrh; for if any ſeparation were

were to take place, we might ſurely expect the camphor to ariſe to the ſurface of the vehicle, and not be depoſited at the bottom. In this experiment, too, there was a greater proportion of camphor, by a quarter of a grain to an ounce of water, than is directed in the camphorated julep.

Hence it is evident, that the advantages of uniting camphor with an aqueous fluid in this manner, muſt be far ſuperior to the uſual way; for if ſo much of the camphor is preſerved in this method of preparing it, will it not be an object of importance, where the phyſician places his chief dependence on that drug, and is at the ſame time under the neceſſity of exhibiting it in a liquid form, to preſcribe it in combination with the gum reſin here mentioned, rather than adhere to the old method, where ſo much of the camphor is demonſtrated to be loſt? If it be objected, that myrrh may not always be admiſſible in certain caſes where camphor is required; yet when it is conſidered that the former is by no means ſo active a medicine as the latter, the ſmall quantity employed,

merely

merely as a bond of union, being only equal in weight to the camphor, can afford little room for objection; but I am persuaded that in most cases it will rather be considered as an improvement to the efficacy of the medicine, than any disadvantage *.

ARTICLE XXIX.

History of a Case of Cicuta, in a Letter to Mr. JOSEPH HOOPER, F. M. S. *by his Brother* Mr. JOHN HOOPER, *of Reading, Surgeon, and* F. M. S. *with two additional Communications by the same.*

AS nothing contributes more to the advancement of medical knowledge than the faithful relation of facts, I beg leave to submit

* Gum amoniacum and asafœtida were afterwards submitted to the same trials as the myrrh; but though both these concretes are by themselves easily miscible with aqueous fluids, yet in the present experiments the camphor, though only in the proportion of one half to the gums, entirely prevented their mixing with water; nor did the assistance of rectified spirit of wine avail in a second attempt, to procure a milky and permanently uniform fluid, from a combination of either of these gums with camphor.

ſubmit to your notice, and that of the Medical Society of London, the following caſe, wherein the good effects of the cicuta were very manifeſt.

Thomas Carden, a ſervant of mine, aged between ſixteen and ſeventeen years, was in the beginning of December 1786 ſeized with a fever, which continued, with irregular intermiſſions, near four months. About the middle of the ſame month he went to his native home upon a riſing common, but he grew no better; on the contrary, after having been there a few days, he experienced the addition of another complaint, a moſt diſtreſſing ſickneſs, with retchings, which gradually encreaſed upon him, more or leſs, till towards the end of April 1787, amounting in that month to from thirty to near ſixty times a day, and he had as often inclination for food, which moſt times he indulged himſelf in; yet that food (as he expreſſed himſelf) did not ſeem to go into the ſtomach It went no further than to its upper orifice, where it made a ſtand till the whole of the œſophagus

œſophagus was filled. In this ſtate it did not remain long, as it was ſoon thrown up again with tolerable eaſe; but when all the food was come off, his retchings became very painful to his ſtomach, which now, in its turn, threw up what little acrid juices it contained. He was ſo fatigued at one time with theſe ſevere conflicts, that he fell apparently lifeleſs on the floor, and continued ſo half an hour. His mother thinking he was dead, called in ſome of the neighbours to lay him out. He complained night and day of a burning ſenſation in his ſtomach; and few days eſcaped without ſome intimation of aguiſh paroxyſm. He grew weaker daily, and the leaſt bodily exertion encreaſed his ſickneſs. He was not confined, but crawled into the common moſt days.

In this diſtreſſing caſe, what could be done? Every uſual remedy was tried; ſaline draughts, cortex peruv. fœtid gums, chalybeates, opiates, &c. &c. I procured him the advice of a phyſician of very extenſive practice; who preſcribed to no manner of purpoſe.

pose. In short, it would be almost endless to enumerate the variety of medicines which the poor lad took, without murmuring.

Almost discouraged from teazing him with more fruitless attempts, and ready to consign him to his fate, it occurred to me, that possibly the cicuta might have a more favourable chance; accordingly I gave him at first only one grain of the extract night and morning, for two or three days. His sickness abating, I gradually encreased the dose to four grains three times a-day. His retchings now were amazingly appeased, and when he had taken it three weeks, his complaint totally left him; though, for security against a return, he continued it four or five weeks longer, gradually diminishing the dose.

That his disorder was put to flight by the cicuta, I am convinced, not only from his amendment on taking it, but likewise from having observed, that if at any time he happened to be out of it, or in other words, if his box was empty, he was sure to feel a return of his sickness; which was as surely repressed

repreſſed upon my ſending him a freſh ſupply.

It would be perhaps unfair not to remark, that during this courſe he took occaſionally at night two or three aloetic chalybeate pills, in caſe of coſtiveneſs; but it is not likely that theſe could have effected the cure, as he had long uſed them previous to his taking the cicuta. He is ſtill in my ſervice, and remains well.

Such have been the happy effects of the cicuta in the above complaint; and although they may not have ſufficient to eſtabliſh its reputation, yet poſſibly may tempt the practitioner to uſe it in ſimilar inſtances.

Agreeable to your requeſt, I ſend you a further account of the luſus naturæ, which I mentioned ſome time ſince.

On the 21ſt of November 1782, a patient of mine was taken in labour two months before her full time; and in a few hours I delivered

livered her of a child, of the uſual ſize for that period. It was living, and ſtruggled for about half a minute, when it died. It was well formed, except the head, the appearance of whoſe forehead was ſimilar to that of the occiput, with ſcarcely any veſtige of a face, no eye-brows or eyes (where they ſhould have been) or noſe; no mouth, but in its place an orbit encloſing two eyes. At firſt I took them only for one, but on a narrower inſpection I could diſcover two joined together; they ſtood very prominent from the orbit. Above this was ſuſpended a ſubſtance, whoſe form was not much unlike a penis of that age; but I could not perceive either glans or prepuce. From the lower part of the orbit hung, by a ſlender filament of about one-third of an inch long, another fleſhy ſubſtance, the bigneſs of a ſmall pea. No chin nor ears in their natural ſituation, but ſomething like ears inverted, &c. joined together in the neck, cloſe under the maxilla inferior. The ſex very obſcure, having a kind of wart on the ſuperior part of the pudenda.

I have preferved the fœtus in fpirits; but the eyes are changed almoft white, from the action, as I fuppofe, of the fpirits upon their coats and humours.

From the above defcription, it is obvious that nothing could be taken into the ftomach. This is therefore an additional proof that the growth of the fœtus has no dependence from that quarter.

The mother does not remember any accident or particular circumftance that befel her during her pregnancy.

I fend you likewife the following cafe of an obftinate ophthalmy cured:

A delicate widow lady, of between twenty and thirty years of age, healthy in all other refpects, was afflicted for near two years with an inflammation in her eyes, attended with excoriations upon the internal edges of the eye-lids.

After

After having purſued a variety of preſcriptions in London to no purpoſe, ſhe came to Reading, in hopes that the change of air might afford her ſome benefit. In this however ſhe was diſappointed, and aſked my advice. I did her no ſervice; and ſhe returned to Weſtminſter, where a famous oculiſt promiſed a cure. He bliſtered her eye-lids, put her to great pain, without being one jot nearer a cure. Thus tired out, ſhe was determined to try a remedy, which ſhe had for ſome time been thinking of, from a ſuppoſition, ſhe ſaid, that her diſorder had for its cauſe a bilious habit; ſhe therefore took a wine-glaſs of the juice of china oranges three times a-day; beſides which ſhe drank daily at her meals lemonade, containing the juice of two lemons. She ſoon found the happy effects of this remedy; and in three months was perfectly cured. She would have continued it longer, had it not cauſed a painful ſenſation in her ſtomach.

It is now more than three years ſince ſhe diſcontinued the uſe of it, and has had no return of her complaint.

ARTICLE XXX.

A Case of Suppression of Urine, occasioned by an Enlargement of the Prostate Gland. With some brief general Strictures on the Use of the Male Catheter; respecting both the Structure of the Instrument and the Mode of introducing it; by JAMES WARE, *Surgeon, and* F. M. S.

Read September 8, 1788.

A Gentleman, residing a little way out of London, about the age of seventy, had for many preceding years been subject to pains in his back, accompanied with various other symptoms, which strongly indicated a disorder in the urinary bladder. Under several violent attacks of these complaints, no small relief had been obtained from the use of medicines, prescribed chiefly by his apothecary, Mr. Adams. But in August 1785, medicine failing of its former success, and a suppression of urine having taken place, and continued

continued for twenty-four hours, it became neceſſary to call in ſome ſurgical aſſiſtance; and I was deſired to attend. I did not find that the belly of the patient was much ſwelled, as might have been apprehended from ſo long a ſtoppage; nor did he complain of any great degree of pain. My object was to open the natural paſſage, and draw off the urine. For this purpoſe, I firſt attempted to introduce a bougie; but was not able to carry it further than to the neck of the bladder. Catheters of various ſizes, and having different curvatures, were next applied; but here alſo I was baffled in every attempt I made; nor was the uſe of theſe inſtruments followed with any other effect than a copious diſcharge of blood from the urethra, in a continued ſtream, for many minutes. This it was not in my power to prevent; though I was particularly careful to avoid force in entering the catheters, and to introduce them in as gentle a manner as poſſible. At firſt ſight of the diſcharge I was led to think that ſome urine might be mixed with the blood: but in this I ſoon found myſelf miſtaken; for when it had ſtood only a ſhort time, the

 whole

whole coagulated into one mafs, which afterwards regularly feparated, in the ufual way, into ferum and craffamentum; the former of which was very fmall in proportion to the quantity of the latter. Still I was not without fome hope that the lofs of blood from the neck of the bladder might have proved beneficial, by abating the inflammation, and thus taking off the oppofition to the paffage of the urine; the happy effect which I had known it, not unfrequently, to produce in fimilar cafes. I judged it neceffary, however, to advife the further meafures of opening a vein in the arm, injecting a clyfter, putting the body into a warm bath, and taking oily opening medicines, to be repeated often; and thefe feveral methods to be ufed in fucceffion, as foon as convenient, in cafe the obftruction remained.

All this was regularly complied with; and as the patient lived at fome diftance from me, I heard nothing more of him for the fpace of a week from my firft attendance. I was then informed, that, though he had continued as eafy during that time as when I faw him,

him, all had been found ineffectual to procure the ſmalleſt diſcharge of urine; that, in conſequence of this, his belly was then much ſwelled; and he appeared to all around him to decline ſo faſt, that it was thought he could not ſurvive many hours. I immediately went to him, and made another attempt to paſs the catheter; but with no more ſucceſs than before. On introducing my finger into the rectum, I found that the proſtate was enlarged; but I was ſtill unable, even with the aſſiſtance afforded by the preſſure of the finger on that part, to procure an entrance for the catheter into the bladder. The patient was then averſe to any further operation; and was indeed become ſo weak, that I could not think of propoſing it. He lived two days longer; during which, tho' he was always uneaſy, he yet did not once ſhew ſigns of violent pain.

The day after he died I was deſired to open the body; and readily embraced the opportunity it offered, of more fully aſcertaining the nature of the caſe; concerning

which I could not but be ſolicitous to obtain further ſatisfaction.

I began with a repetition of the attempt to introduce the catheter, in the uſual way, through the natural paſſage of the urine; but I could not now carry it any further than I did when the patient was living. The apex of the catheter ſeemed to advance, however, upon my preſſing its handle with a ſmall degree of force; and upon my increaſing this force, which in the dead ſubject I was not afraid to do, the inſtrument made its way into the bladder; when four pints of urine were drawn off. I then proceeded to open the cavity of the abdomen; the contents of which appeared perfectly ſound. Upon introducing my hand into the pelvis, I felt a large ſtone in the bladder; and on examining further I found that the proſtrate gland was enlarged to a very great ſize. I made an opening into the upper part of the bladder, and extracted the ſtone. It was of an oval ſhape, and nearly as large as a hen's egg. After this I again introduced the catheter through the urethra,

urethra, and inftantly carried it into the bladder, through the perforation I had before made into it with this inftrument. I carefully diffected the bladder and proftate from their connexions in the pelvis; and removed them, together with a fmall portion of the membranous part of the urethra. Having the difeafed parts now fully before me, I made an incifion through the proftate, in order to examine the ftate of the urethra, at the part where it enters the bladder, and where the refiftance was made to the paffage of the catheter. This inftrument I found had pierced through the urethra about a quarter of an inch beyond the caput gallinaginis, and had paffed nearly two inches through the fubftance of the enlarged proftate, before it entered the bladder *. The prominence of the proftate was fo great, that it projected above an inch and a half in nearly a perpendicular direction to the membranous part of the urethra, at the place where the catheter had pierced it. This gland had no appearance of being gangrened, nor had it undergone any change of colour; yet,

* See Fig. 1. on the plate annexed.

notwith-

notwithſtanding this, its external aſpect, it muſt certainly have acquired a conſiderable degree of morbid tenderneſs! as its admitting the blunt end of a large catheter to paſs through it, was, I think, no otherwiſe to be accounted for. The caput gallinaginis had its uſual ſize and appearance; and round it were a great number of lacunæ. Some of theſe were of conſiderable ſize; and one in particular, beſides the perforation through which the catheter paſſed into the bladder, was ſo large, that I imagine either a bougie, or one of the catheters which had been introduced to draw off the urine, muſt have been carried into it, and dilated it.

The caſe I have now related is one, among many other inſtances of diſorder to which the human ſpecies are liable, which it ſeems beyond the power of art to relieve. The enlargement of the proſtate, in this inſtance, was indeed moſt probably occaſioned by the ſtimulus which a ſtone in the bladder excited; and therefore, if the exiſtence of the

ſtone

ſtone had been aſcertained at an earlier period, its removal might have prevented the fatal effects that followed. Many inſtances, however, have occurred, and ſeveral are related by authors, of ſimilar affections of this gland without any ſuch cauſe, and indeed without any known cauſe whatever; and in all ſuch caſes it merits enquiry, Whether, if the catheter cannot be introduced through the natural paſſage, it may not be ſafely carried through the enlarged gland, in the way it was introduced, after death, in the caſe here related?

But it is not my deſign, at preſent, to dwell either upon the nature or treatment of this diſorder; and in what remains of this paper, I ſhall confine myſelf to ſuch remarks as have occurred to me, and may not be undeſerving attention, on the ſhape of the male catheter, and the mode of introducing it.

This is a ſubject of no ſmall importance; ſince, in ſuppreſſions of urine, the catheter often ſupplies the only remaining means for the preſervation of life. Various impediments

ments to the introduction of the catheter may undoubtedly exiſt, which no ſkill or dexterity is able to ſurmount; and I believe it will be admitted, that one of theſe has been deſcribed in the preceding caſe. It is nevertheleſs moſt requiſite, in all caſes, that a careful attention be given to the ſhape and ſize of the catheter; and in the uſe of the inſtrument attention ſhould alſo be given to the ſtructure and curvature of the urethra; it being no leſs apparent than certain, that the probability of ſucceeding, however ſmall in itſelf, muſt always be leſs when the circumſtances above pointed out have not been properly regarded.

In the firſt place, it appears to me not a little extraordinary that the curvature of the catheters, which are repreſented in many books of ſurgery, and alſo of thoſe which are uſually ſold at the inſtrument-makers, ſhould differ ſo much, as I find they do, from that of the ſound, that is uſed in ſearching for the ſtone. The greateſt difficulty that occurs, both in ſearching and in drawing off the urine, is in the introduction of the proper inſtruments;

inſtruments; and if, as a modern writer of acknowledged merit informs us*, the curvature of the ſound he repreſents is taken exactly from the natural curvature of the urethra, and is moſt proper for its introduction into the bladder, that curvature, I ſhould imagine, would be moſt ſuitable for the catheter alſo. This inſtrument, however, is in general curved very differently from ſounds; and the catheter Mr. Bell himſelf repreſents in Plate 15, Vol. ii. is curved quite different from his ſounds repreſented in Plate 12 of the ſame volume. The curvature of the ſtaff for directing the gorget into the bladder in lithotomy, is required to be large; and perhaps larger than that of the other inſtruments I have mentioned, in order that it may prove a more certain guide in conducting the knife through the integuments in perinæo. But this is a uſe to which neither ſounds nor catheters are applicable; and therefore unleſs the largeneſs of the curvature renders the introduction of theſe inſtruments into the bladder more eaſy, it does not appear requiſite in either of them.

* See Bell's Syſtem of Surgery, Vol. ii. p. 34.

It

It may probably be urged, that the ſound requires a large curvature, in order that a large portion of it may be introduced into the bladder; and thus, in ſearching, when the ſtone is ſmall, the chance of ſtriking on it may be greater than when the curvature is leſs. But I am very doubtful whether a larger portion of the ſound can be introduced when its curvature is large, than when it is ſmall; and beſides this, the ſtone naturally falls to the bottom of the bladder; and this is a part of it which may be reached without any extraordinary curvature of the inſtrument: beſides which, the apex, or inner termination of the ſound, admits of conſiderable motion in the bladder, by raiſing or depreſſing its handle; and therefore it may by this method, in moſt caſes, be carried into contact with any body that is lodged in it.

It is, however, neceſſary for me to add, that as the curvature of the ſound is ſometimes too large, that of the catheter, on the contrary, is often made much too ſmall; and I have ſeveral times been diſappointed in the attempt to introduce ſuch an inſtrument, when

when I have afterwards ſucceeded with a catheter whoſe curvature was larger.

The tranſlator of Monſ. Le Dran's Treatiſe on the Operations of Surgery, obſerves, page 219, " that the curvature of the catheter ſhould be proportionable to the make of the patient; and that this may be gueſſed at ſight." I am at a loſs to underſtand the meaning of this ſentence, if any thing more is intended by it than that the curvature of the catheter ſhould be varied according to the ſize of the perſon on whom it is to be uſed. And this appears to have been the meaning of Le Dran himſelf; ſince the original words, " grandeur du malade*," may, I think, more properly be tranſlated " ſize of the patient," than " make of the patient." The curvature of the urethra in perſons whoſe ſize is ſimilar, is in general, I believe, nearly alike; and when the ſize varies, as in the caſe of a boy and a man, I am diſpoſed to think, though the ſeveral parts are larger in the latter than in the former, that the curvature is ſtill ſimi-

* Traite des Operations de Chirurgerie, par H. F. le Dran, p. 288.

lar.

lar. Heifter feems to have been of this opinion; and in plate 27 he gives a reprefentation of a number of catheters, differing in length and thicknefs; but in all of thefe the fame curvature is preferved, in proportion to their refpective lengths.

Some furgeons have fhaped their founds according to the fhape of the large curvature of the urethra; but this does not feem to furnifh a certain rule for the conftruction either of founds or catheters, fince the difficulty that occurs in introducing them does not arife from the want of fuch conformity, but from the oppofition thefe inftruments meet when their apex, or inner termination, reaches the end of this curvature, and has to pafs a fmall curvature of the urethra which lies under the fymphifis pubis, at the entrance into the bladder.

Le Dran obferves, that the fize of the catheter fhould be fuited to the fize of the urethra; and that this is to be determined by the fize of the orifice in the glans penis *.

* Traite des Operations de Chirurgerie, par H. F. le Dran, p. 288.

I have, however, often found the orifice of the urethra in the glans penis much contracted; and yet the urethra, in its whole length afterwards, has been of its full natural ſize. Le Dran adds a remark, which I believe is univerſally admitted to be juſt, "that a pretty large catheter always paſſes better than a ſmall one."

As to the length of the catheter, theſe inſtruments are generally made much ſhorter than ſounds. In the latter, indeed, the additional length affords a conſiderable advantage to the ſurgeon, enabling him to move it about in the bladder in ſearch of a ſtone, with much more eaſe than he could do if it was ſhorter. But the neceſſity is not the ſame in the uſe of the catheter; notwithſtanding which, if the length of that inſtrument was increaſed to about twelve inches, according to the repreſentation of it in Fig 2, on the plate annexed, which is more than an inch above the ordinary length, I believe the facility of uſing it would be in no ſmall degree increaſed.

 The

The figure juſt referred to is taken from an inſtrument which I have long made uſe of myſelf; and have found it ſo often to ſucceed, where others of a different ſize and curvature have failed, that I beg leave to recommend it to the notice of this Society.

With regard to the poſture of the patient during the operation, I have performed it when this has been very different. The moſt convenient, I think, is for the patient to ſtand with his back againſt the wainſcot of the room, and the ſurgeon to be ſeated before him. If, however, the patient is very infirm, the operation may be performed either in a ſitting or more reclined poſture, as he ſhall find to be moſt eaſy.

The mode in which I paſs the inſtrument, is as follows:

Being firſt thoroughly oiled, I introduce it into the urethra with its convex part uppermoſt, and carry it as far as it will paſs without uſing force. It is the practice of ſome ſurgeons, in doing this, to draw the penis forwards over the catheter; and Monſ.

Le Dran obſerves *, “that the great art in ſearching,” and I preſume he muſt mean there is the ſame art in drawing off the urine, “is to keep up a kind of intelligence between the hand that ſupports the penis, and the other which directs the inſtrument.” He adds, “that they ought to act ſo in concert, that, alternately, the catheter may be thruſt into the penis, and the penis drawn forwards upon the catheter.” In this method I have repeatedly attempted to introduce the catheter; but, notwithſtanding all the care I could uſe, my attempts have in general been without ſucceſs; and I have obſerved, in various inſtances, that the attempts of others, in the ſame way, have been equally unſucceſsful. I do not mean, however, by this remark, to convey a doubt of Le Dran's ſucceſs, according to the method he has deſcribed; but ſince I and others have not been ſo fortunate as to meet with ſimilar ſucceſs, I hope I ſhall ſtand excuſed if I propoſe a method ſomewhat different, and which, in my practice, has been more ſucceſsful. I therefore add, that in a great number of inſtances, I have ſcarce once found it neceſſary to touch

* Traité par le Dran, p. 290.

the penis after the apex of the catheter has been introduced into the urethra; nor will this, I think, appear improbable, when it is confidered that the anterior part of the urethra is the only part which can effentially be affected by drawing the penis forward; and this affords no obftacle to the paffage of the inftrument, unlefs there is a ftricture in it. The pofterior part of the urethra, through which alone it is difficult to pafs the inftrument, can neither be ftraitened nor fmoothed by this part of the procefs. But befides the objection I have now mentioned to the practice of drawing the penis forward, I fhall prefently have occafion to obferve further, that the confinement of the catheter, neceffarily occafioned by it, is not only unneceffary, but, in a fubfequent part of the operation, is alfo liable to be injurious.

When the catheter has proceeded as far as it will pafs without ufing force, I turn it flowly round, fo as to bring its concave fide uppermoft; and in doing this I make a large fweep with the handle of the inftrument, and at the fame time keep my attention fteadily fixed on its apex, or inner ter-

mination; which I take particular care neither to retract, nor to move from its first line of direction.

In this part of the operation, as well as the former, I differ considerably both from the directions and practice of many eminent surgeons. Mr. Bromfield*, in particular, directs, when the apex of the sound meets with resistance in perinæo, that it be turned round, not *slowly*, as I have directed, but *suddenly*; and though I do not find the same direction so plainly given by other chirurgical authors when writing on this operation, yet this is the mode I have generally seen surgeons pursue in the performance of it. Sometimes, when the operators have been experienced men, like the gentleman abovementioned, it has without doubt succeeded in this way; but in general, and especially when the surgeon has been inexperienced, the operation has failed; and even with the finger in the rectum it has not always been rendered successful.

* See Bromfield's Chirurgical Observations, vol. ii. p. 200.

When, again, the apex of the catheter reaches the neck of the bladder, if it does not eaſily paſs in on depreſſing the handle, Mr. Sharp * recommends to withdraw it a quarter of an inch, and then to introduce the finger into the rectum to raiſe it; by which method, he ſays, it will ſeldom fail to enter. For my own part, I have rarely had occaſion to introduce my finger into the rectum in performing this operation; and in the direction above given for introducing the inſtrument, I have mentioned particularly that its inner termination ſhould not be permitted to retract when it reaches the arch of the os pubis. I beg to dwell upon this circumſtance, believing it eſſential to the eaſy introduction of the inſtrument. On the contrary, whenever I have been inattentive to it, and have allowed the catheter to fall back, I have always been under the neceſſity of entirely withdrawing it.

But the part of the operation of introducing the catheter, on which I believe its ſucceſs chiefly depends, is the preſervation of the

* See Sharp's Treatiſe on the Operations of Surgery, p. 81.

apex of the inſtrument, at the time of turning its concave ſide uppermoſt, in the right direction of the urethra, ſo that it may not then preſs againſt the ſides of this canal. In order to make my meaning better underſtood, I will ſuppoſe a perſon to preſs the apex of a catheter, with its convex ſide uppermoſt, againſt his finger, or any other reſiſting body. If he turns the inſtrument ſuddenly round, ſo as to bring its concave ſide uppermoſt, he will find, unleſs he uſes great care, that its apex will be moved from its place, and take a new direction, different from that which it followed before he made the turn. A ſimilar effect takes place when the inſtrument is in the urethra; and if in that caſe, on the turn of the inſtrument, its apex, inſtead of preſſing ſtrait forward in the urethra, ſhould take its direction againſt the ſides of the canal, no additional preſſure afterwards can make it advance. For this reaſon, inſtead of turning the inſtrument ſuddenly, in the way recommended by Mr. Bromfield, I always make the turn ſlowly, and give the handle of the catheter a large ſweep round; and this large ſweep of the handle is accom-

plifhed much more readily when the inftrument is unconfined, than it can be when the penis is drawn forwards over it, in the way recommended by Monf. Le Dran.

When the catheter is turned, it muft ftill be preffed onward; and its handle at the fame time be gently depreffed. By this method it will be made to enter the bladder; and upon removing the ftile, the urine of courfe will be difcharged through it.

I fcarcely need mention, that, previous to the ufe of a catheter, a bougie fhould be introduced. This alone, in many inftances, has been fufficient to procure the difcharge of the urine. I have alfo, not unfrequently, fucceeded in drawing off the urine with a hollow bougie made of elaftic gum. But notwithftanding thefe fucceffes, cafes will ftill often occur which the catheter alone can relieve. Every hint, therefore, that may tend to render the introduction of this inftrument more eafy and certain, will, I flatter myfelf, be thought not unworthy the attention of this Society.

REFERENCES

REFERENCES TO THE PLATE.

Fig. 1. Was taken from a preparation of the parts affected by the disorder, described in the preceding paper.

A. Part of the inside of the urinary bladder.

B. C. D. E. The inside of the enlarged prostate gland.

F. G. A probe carried through the perforation made in the prostate with the catheter.

H. The caput gallinaginis perforated by a great number of lacunæ, and surrounded by many others.

I. K. The orifices of the ureters.

L. M. The outside of the prostate.

N. O. The outside of the bladder.

Fig. 2. The catheter recommended.

ARTICLE XXXI.

Case of a Scirrhous Oesophagus, by WM. FARQUHARSON, *of Edinburgh,* M. D. *and* C. M. S. *Fellow of the Royal College of Physicians of Edinburgh, and Corresponding Member of the Society of Scotch Antiquaries.*

Read December 3, 1787.

THE constricted œsophagus, one of the most deplorable diseases to which the human body is subject, though not uncommon,

mon, has been ſo ſeldom deſcribed by medical writers, and is ſo little known by the generality of practitioners, that it may be deemed a new diſeaſe.

Having been hitherto found incurable, except in an early ſtage, I flatter myſelf a minute and accurate hiſtory of its firſt ſymptoms and progreſs will not be unacceptable to the public; more eſpecially as its beginning is too ſlight to give the patient any alarm, or be thought a proper object of medical attention.

With a view to the above, I lay the following caſe before the Medical Society, and beg leave to aſſure them that I can promiſe for the authenticity of the facts, as they were taken from the patient's own mouth, and minuted down at the time; and I hope a proper attention to accuracy and minuteneſs will excuſe the deficiency of ſtyle and arrangement.

June 10, 1787. William Glen, aged 44, naturally delicate, of a ſlender make, remarkably

ably pale complexion, very weak and extremely emaciated, conſulted me for a diſorder in the œſophagus, about half way between the throat and ſtomach, which rendered him perfectly incapable of ſwallowing ſolid food of any kind; and even cauſed the moſt liquid food to be rejected, after remaining ſome hours in his throat.

On examination, I found that he had laboured under this complaint, though in a leſs degree, ſince the beginning of January 1787.

He gave me the following hiſtory of his caſe:

January firſt, he was ſeized with a cold and ſlight fever, to which he was very ſubject; this confined him to his bed for ten days. When he began to recover, he felt a ſlight difficulty of ſwallowing, which he attributed to wind meeting the food in its paſſage to the ſtomach.

For this ſuppoſed windy complaint he conſulted a druggiſt of this place, who ordered

dered him ſome hiera picra infuſed in brandy; a wine-glaſs full to be taken twice a day. This increaſed his complaints ſo much, that he left off uſing it in leſs than a week; and took no more medicines till after he conſulted me. It will not be improper to obſerve here, that this patient had never found ſpirits agree with him; but ſince January laſt they increaſed his ſufferings very much. He was temperate in the uſe of every thing, except drinking tea and ſmoking tobacco.

From this time he grew daily worſe; ſo that by the end of February every bit of his ſolid, and part of his liquid food was rejected, after remaining four, five, or ſix hours in the œſophagus. From the time of his ſwallowing any food to the time of its being rejected, he was very uneaſy. He complained of a ſenſe of weight and fulneſs in his breaſt, and a violent pain in his back, nearly oppoſite to the cardia. Theſe ſymptoms went off after the food came up

He was now reduced to the neceſſity of ſubſiſting entirely on the moſt liquid food,

taken often, but in a ſmall quantity at once; though he could ſtill ſwallow freſh butter pretty well, and had a great deſire for it, yet his poverty prevented him from procuring a ſufficient quantity.

As his food was now ſeldom retained more than an hour, or two at moſt, and was thrown up in greater quantities than formerly, he loſt his ſtrength and fleſh ſo much, that he began to be alarmed; and for the firſt time thought himſelf in danger.

June 10th he conſulted me. I immediately ſuſpected the cauſe of this diſorder, and though I had very little hopes of curing him, as the diſeaſe was ſo far advanced, yet, that I might not ſeem to abandon him to his fate, I reſolved to give mercury a fair trial; which was the only medicine I had ever ſeen of uſe in the like circumſtances. As I judged it neceſſary to produce a gentle ſalivation as quickly as poſſible, I ordered him three grains of calomel, and one grain of opium, every night at bed-time, with a laxative occaſionally, to obviate coſtiveneſs. At the

ſame

ſame time I ordered him to be fed with milk or rich broth, a good deal of freſh butter, and a little wine daily.

In about ten days he began to ſpit gently; and in about a month more I was agreeably ſurprized to find him ſo much relieved, that he could ſwallow liquid food without difficulty, and got over even ſolids, when cut ſmall and well chewed. Neither ſolids nor liquids were now rejected. The pain in his back, and ſenſe of weight and fulneſs at his breaſt, had gone off; and he began to gather fleſh and ſtrength, ſo that I had every reaſon to look for a perfect cure.

As he now ſalivated freely, I ordered him to omit his medicines every other night, to guard againſt cold, to live on the moſt nouriſhing diet he could procure, and to encreaſe his ordinary quantity of wine. However, he unluckily expoſed himſelf in a rainy day, and got a rheumatiſm in his thigh. This, and the idea of his being out of danger, made him give up his medicines entirely; and I heard no more of him till the 25th of September,

tember, when he was admitted into the General Difpenfary of Paifley.

Mr. White, one of the furgeons, examined him with me. We found things had taken a furprifing turn for the worfe. All his complaints had returned with greater violence than ever; his inability of fwallowing, even liquid food, had increafed; and every thing he took was rejected in a fhorter time than formerly, with a particular gurgling noife. He had pain, as well as the fenfe of weight and fulnefs at his breaft; and the pain of his back was now conftant and more fevere. The dilatation of the upper part of the œfophagus was plainly perceptible; he was extremely weakened and emaciated. He never had a ftool without a clyfter or a laxative; and it was with difficulty he got down as much of the laxative as kept his body open. His pulfe was regular, but weak; and his breathing was not at all affected. He informed us, that his complaints had returned in a fhort time after quitting his medicines, and immediately after his falivation ceafed.

In

In this ſituation little could be expected from medicines; however, we ordered the calomel and opium to be repeated, and ℥ij of mercurial ointment to be rubbed into the pained part of his throat every night at bed-time, with ſome decoction of woods after it, and a laxative occaſionally. We likewiſe ordered half a pint of wine, and a clyſter of mutton broth daily. At the ſame time we gave particular directions about feeding him.

Notwithſtanding all our endeavours, his diſeaſe gained ground daily; ſo that by the middle of October every particle of his food was rejected in a few minutes, mixed with a great quantity of mucus and ſaliva. His weakneſs and emaciation were now ſo extreme, that he could not move off his back; and for ſome days before his death he was generally in a ſtate of ſtupor, unleſs he was ſpoke to; yet he ſtill expreſſed a deſire for food; and his breathing was not in the leaſt affected, as the day before his death he ſlept with his mouth ſhut, and without a pillow, in his ordinary manner. We now ordered the

the broth clyſters to be repeated thrice a-day, without any effect; for on the 27th of October he expired without a ſtruggle, abſolutely ſtarved to death.

Leave being obtained to open the body, it was carefully examined by Mr. Thynne, one of the ſurgeons of the Diſpenſary.

The emaciation was extreme; not a particle of fat was to be ſeen; and even the muſcles themſelves ſeemed to be waſted.

On laying bare the œſophagus, we perceived about ſix inches of it, beginning a little below the pharynx, much dilated; and about two inches and a half from that, to near the cardia, perfectly ſcirrhous.

On cutting it open, we found the coats of the dilated part much thinner than ordinary; the inner coat was extremely ſmooth, and perfectly free from ulceration. This part of the œſophagus contained a great quantity of mucus and ſaliva, with a little of the aliment, but no pus.

The ſcirrhous portion of the œſophagus was completely impervious, and afforded conſiderable reſiſtance to the ſmall blade of a probe ſciſſars, with which it was cut open. The coats of this portion were imperceptible, being confounded in the ſcirrhous maſs.

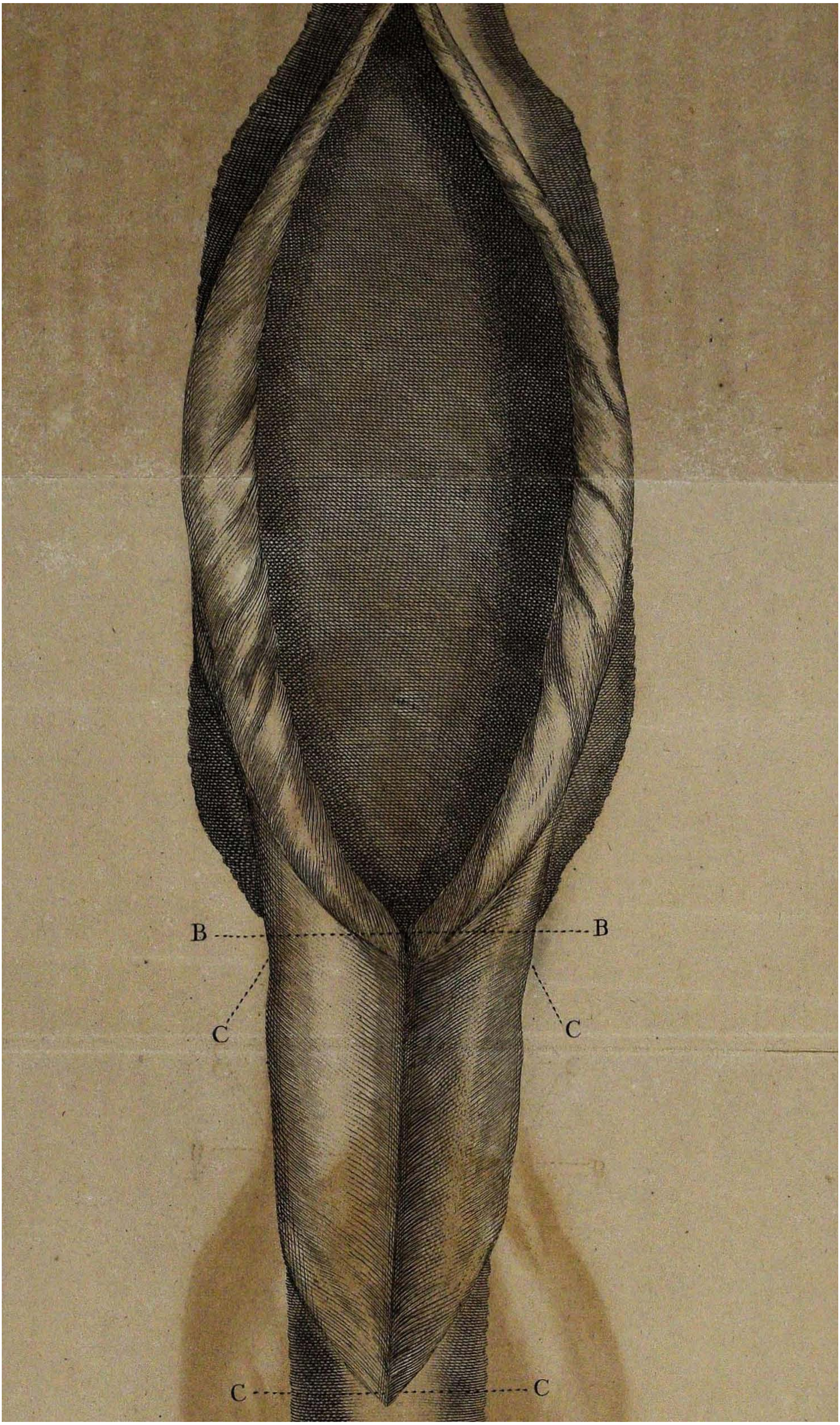
The ſtomach ſhewed no appearances of diſeaſe; only the coronary vein was uncommonly large, and much diſtended with dark-coloured blood. There was a great quantity of a fluid in the ſtomach, which appeared to be principally bile and mucus.

The inteſtines were much contracted; but otherwiſe in a natural ſtate.

The liver, gall-bladder, pancreas, and ſpleen, were as uſual.

The ſubſtance of the lungs was remarkably white; and the ſmalleſt ramifications of the veins appeared as if they had been filled with a black injection. Both lobes, but particularly the right, adhered ſtrongly to the pleura.

The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The heart was not larger than that of a child ſix years old, yet it ſeemed perfect in all its parts, and the arteries and veins connected with it were of the ordinary ſize; but their coats were remarkably white and thin. There was no water in the pericardium, or ſacs of the pleura.

In the drawings ſubjoined to this caſe, I have endeavoured to give a repreſentation of the diſeaſed part of the œſophagus, of the natural ſize, both before and after it was cut open.

EXPLANATION OF THE PLATE.

A. The œſophagus cut off a little below the pharynx.
B. B. B. B. Dilated part of the œſophagus cut open.
C. C. C. C. Scirrhous part of the œſophagus cut open.
D. OEſophagus cut off a little above the cardia.

ARTICLE XXXII.

History of a Case of incifted Dropfy, with a Diffection, by AMOS WINSHIP, *of Bofton, Maffachufett's,* M. D. *and* C. M. S. *in a Letter to* J. C. LETTSOM, M. D.

Read March 31, 1788.

C. M. a young woman 34 years of age, began to have hydropic fwellings of the abdomen early in the year 1786. She had been intemperate for fome years, and had, previous to this indifpofition, been cured of the lues venerea. After the trial of powerful diuretics and cathartics, deobftruent medicines without advantage, the paracentefis was performed by Dr. Cheever of this place, and upwards of four gallons of limpid water were difcharged.

After this operation fhe improved in health, and gradually regained her ftrength and fpirits, and had a return of regularity in the

the whole animal œconomy; the urine in particular was diſcharged in its uſual quantity and colour.

This healthy appearance was of ſhort duration; in a few weeks the abdomen again tumefied; the accuſtomed evacuations were ſuppreſſed or irregular, and the operation of tapping was again had recourſe to, and with ſimilar advantages. She filled again with water, and was tapped the third time. In the beginning of October the operation was again neceſſarily performed for the fourth time, which proved the laſt; for a fever and diarrhæa ſoon after enſuing, ſhe died on the 14th of the ſame month.

The Diſſection.

On commencing the opening of the abdomen, the firſt præternatural appearance was a collection of purulent matter, lodged between the oblique and tranſverſe muſcles. Upon continuing the inciſion through the

integuments into the cavity of the abdomen, there gushed out an extremely fœtid fluid, intermixed with pus and coagulable lymph; in which numerous hydatides, of the magnitude of an hazle-nut, were floating. After discharging this collection of fluid, which amounted to several gallons, we were surprized to find, that, instead of the abdominal viscera, the whole anterior surface of the abdomen was occupied by a membranous cyst, which adhered firmly to the external coat of the peritonæum, extending from the brim of the pelvis to the epigastric region; and which had contained the immense collection just mentioned. By its weight and magnitude it had pressed the intestines into the upper portion, immediately against the diaphragm. The superior extremity of this cyst, with the posterior lamina of the omentum, having formed a complete septum, in a parallel direction with the diaphragm, making a kind of distinct cavity, which contained the principal abdominal viscera; but the colon escaping out of this cavity, took a direction in a right line, close to the vertebræ of the back, and under the anterior surface of the great

great cyſt, not diſſimilar to the paſſage of the œſophagus through the thorax.

In removing this great cyſt, the coat of which was about half an inch in thickneſs, of an appearance of concreted coagulable lymph, another cyſt, of the ſize of a child's head, was diſcovered, lying between the veſica urinaria and uterus. This ſecond cyſt was full of purulent matter, with a ſubſtance on the interior ſurface of its fundus of a ſteatomatous appearance, combined with a quantity of hair full eighteen inches in length. The uterus was very little altered from the natural conſiſtence and ſize. On removing it, a third cyſt was diſcovered, lying between this viſcus and the rectum, of about half the magnitude of the ſecond cyſt, containing pus, and a fatty ſubſtance intermixed alſo with hair; with the additional peculiarity of having its internal ſurface lined throughout with a lamella of bone, which firmly adhered to the internal membrane, or tunic of the cyſt. The hair found in both the cyſts was of a light ſandy colour; but

the hair of the mons veneris, and head of the patient, was black.

I remark this more particularly, as the theory of the generation of hair is ſtill obſcure. The length of the hair found in the two ſmaller cyſts, leſſens the probability of its originating from a fœtus.

The bladder was become almoſt in a ſcirrhous ſtate, and in ſome parts oſſified; yet when the patient was relieved by tapping, ſhe diſcharged urine plentifully, and with facility.

REFERENCES TO THE PLATE.

Fig. 1. The hairy ſubſtance found in the ſecond cyſt.
Fig. 2. The appearance of the third cyſt, with the hair projecting through its integuments.

ARTICLE

Fig. 1.

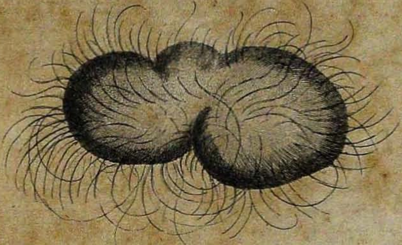

Fig. 2.

ARTICLE XXXIII.

An Account of a remarkable Spaſmodic Affection from the Puncture of a Pin, cured by the liberal Uſe of Laudanum, with Antimonial Wine. *By* THOMAS POLE, *Surgeon, and* F. M. S.

Read January 18, 1787.

A Young woman, about twenty years of age, of a ſlender delicate form, clear freſh complexion, and of great irritability of the nervous ſyſtem, but in perfect health, had the misfortune, on the 22d of the 12th* month, 1786, to wound her right hand with a hair-pin. The wound did not bleed, but immediately aſſumed a livid blackiſh colour, attended at firſt with numbneſs; which in about ten minutes was ſucceeded by ſharp darting pains. The part ſoon began to ſwell, extending as far as her elbow; and the next day became red and inflamed, which continued to increaſe for eight days; when ſhe came from the country to London for my advice.

* The months are mentioned by their numerical names.

I was

I was aware that the great irritation might probably arise from a nerve being punctured, as the pin entered the ball of the thumb, and penetrated as far as the anterior part of the carpus; where the nerves are pretty plentifully passing to the fingers and thumb. I recommended her such medicines as I thought would tend to abate inflammation. Gave *Ext. Theb. gr.* j. *omni nocte et urgente dolore.*

℞ *Ext. Saturn.* ℥ij. *Tinct. Theb.* ℥iij.
Aq. Puræ ℥vß. *M. ft. lotio part. affectæ applicanda subinde.*

℞ *Sal. Carth. Amar.* ℥iij. *Syr. e Spin. Cerv.* ℥ß.
Aq. Menth. pip. simp. ℥vijß. *M. Capiat. coch.* iij. *ad libitum.*

From this plan she derived no relief. The inflammation continued to extend to the shoulder, with an increase of the pain; which proceeded up the neck to the head. All the fingers on that hand were contracted; but especially the two smallest. 1st of the 1st month 1787, took away six ounces of blood from the left arm, and repeated the lotion.

2d.

2d. Gave *Pulv. Dover* ℈j. *Tinct. Cinn.* ʒij. *Aq. Puræ.* ℥iß. *ft. Haust.* and at bed-time took the following draught:

℞ *Vin. Ant.* ʒj. *Tinct. Theb.* gut. xx. *Spt. Nitr. D.* ʒj. *Aq. Puræ.* ℥iß. *M. ft. Haust.*

And uſed the following liniment on the arm affected.

℞ *Ol. Amygd. D.* ℥j. *Ext. Saturn.* ʒij. *Tinct. Theb.* ℥ß. *M. ft. Liniment.*

8th. Ordered *Ung. Samb.* to anoint her arm, which ſhe thought mitigated the pain. She alſo took the following mixture:

℞. *Spir. Volat. Aromat.* ʒj. *Succ. Limon.* ʒij. *Syr. de Mecon.* ℥ß, *Tinct. Stom.* ℥ß. *Vin. Antim.* ʒij. *Aq. Puræ* ℥iij. *M. Capiat. Coch.* ij. *ter in Die.*

11th. This mixture was repeated.

14th ditto. Being three weeks from the accident, ſhe complained of a correſponding pain in the left arm, anſwering to that of the right, and darting pains about her heart. The complaint

complaint at this time took a favourable turn: and in about another week ſhe was nearly relieved of all the pain and inflammation, and moſt of the ſwelling. The two ſmalleſt fingers ſtill remained in a ſtate of rigid contraction; which was entirely relieved by the electrical ſhock, frequently repeated. This was at the end of the firſt month; and on the firſt of the ſecond ſhe went to work with her needle; after which, in the night, the pain and ſwelling returned with conſiderable violence. She applied to me the next day, when I again tried the electrical ſhock, and repeated it the following day, but without any advantage; and the increaſe of pain induced me to leave it off. A bliſter was now applied to the wriſt.

2d month 3d. one grain of *Opium* was given every night, increaſing it to two grains, which did not procure her any reſt; neither did the bliſter alleviate her ſufferings. The arm was then bathed with *Tinct. Theb. et Ext. Saturn. p. æ.* which veſicated the ſurface without affording relief.

On

On the 8th inftant had the additional advice of a furgeon of eminence, which was followed without the leaft fuccefs; and on the 11th I attended to opium only, which I gave in pills, containing one grain each. She took two every four hours; and in two days increafed them to three every four hours; and on the 14th, took four every four hours. She complained of a fenfe of tightnefs on her cheft. Her pains were now increafed, and diffufed over the whole frame; but more efpecially on her right fide. The flexor mufcles of the leg now contracted, the maffeter mufcle on that fide was in confiderable pain, with continual fpafmodic catchings all over the body and extremities; but moft of all in the right arm, which fhe moved with a fudden jirk, about forty times in a minute, with confiderable force. Had at times a chattering of the teeth, and for this day or two a fhort hacking cough, which was very fatiguing. Her pulfe has been about 86 in a minute. Sleeps at beft but about half an hour at a time, for about three times in the twenty-four hours. To-day and yefterday coftive, and has taken *Pulv. Jalap.*

gr.

gr. x. in pills; has little appetite; takes little elſe but beef-tea and wine-whey. Ordered her xxx. drops of *Tinct. Theb.* with lx. of *Vin. Antim.* every two hours; and after taking it twice, ſlept an hour and a half. Dr. Lettſom and Surgeon Cline ſaw her to-day; no alteration propoſed; but the addition of *Vin. Antim.* as above, to promote perſpiration, which has had that effect.

15th. I viſited her to-day with Dr. Lettſom; has had at intervals about three hours ſleep. Cough very frequent and troubleſome; convulſive motions much the ſame; pain moſt conſiderable in the neck; has had no evacuation from the *Pil. Jalap.* Now ordered her *Tinct. Theb.* gut. xliij. *Vin. Antim.* gut. lxxxvj. every three hours; and the pills were repeated. Whilſt aſleep, has had convulſive motions in her head and arms; which has not been before obſerved in her ſleep. In the evening continued much the ſame; has had ſome little ſleep at ſhort intervals.

16th. Pulſe 94. Pains much the ſame. Catchings not ſo frequent; had one ſtool after the ſpace of three days. Cough much

as

as before; has ſlept ſeveral hours at intervals through the night. Senſe of tightneſs on her cheſt continues. Ordered her clyſters of gruel with common ſalt, and to take 53 drops of *Laudanum*, with 106 of *Vin. Antim.* every three hours. In the evening Dr. Lettſom ſaw her again, and ordered her a continuation of the drops, and a bolus, containing *Pulv. Cort. Peruv.* ℈i. *Tinct. Theb. q. s. ft.* bolus (iv. *bol.* took ℈iij. of *Tinct. Theb.*) and in the drops and boluſes ſhe takes 784 drops of *Tinct. Theb.* in twenty-four hours. She was evidently worſe ſoon after he left her, before ſhe had taken his medicines. General languor and debility increaſed; ſpaſms more frequent and violent, which rendered it impoſſible to count her pulſe, even in the left arm; the right leg much more convulſed than the left; has had ſome ſleep at intervals, attended with trembling of the extremities, or a quick kind of ſpaſmodic action; has had one evacuation ſince the clyſter was adminiſtered.

17th. Had ſeveral hours ſleep in the courſe of the night, and is conſiderably better

ter with reſpect to the general vigour of the conſtitution ; cough and tightneſs on the cheſt much the ſame, as well as the ſpaſms ; complained of great pain in the right ſide of the neck in the night ; has ſome difficulty in ſwallowing, owing to a ſenſe of ſwelling in the œſophagus ; no particular rigidity of the maſſeter muſcles. An eruption has appeared on the face, neck, and breaſt. Saw her again in the evening, when the ſymptoms were much increaſed. Great languor and general debility ; her cough 108 in a minute ; and with every cough her limbs were affected with a ſpaſmodic and very forcible contraction. Her tongue dry and brown in the middle, with a white line on each ſide ; has had an hour and a quarter of ſleep at one time to-day, and ſeveral other ſhort ſleeps of a quarter of an hour. Had one ſtool from a clyſter, which was given her in the morning; difficulty of ſwallowing increaſed, with a ſenſe of ſoreneſs in the throat. Catchings more conſiderable in her ſleep than heretofore, and the muſcles of the face at times convulſed. Added ten drops of *Theb. Tinct.* and twenty of *Vin. Antim.* every three hours,

hours; which makes 864 drops of *Tinct. Theb.* in twenty-four hours.

18th. Viſited her in the morning; find ſhe has had ſeveral hours ſleep during the night; not ſo languid and faint as laſt evening; has had no further evacuations from the inteſtines; ordered the clyſter to be repeated. Her other ſymptoms much the ſame as before. Saw her in the evening; has had three or four clyſters without any effect. Ordered her *Jalap.* gr. x. complains of much pain on the right leg, and up to her head on that ſide; is more convulſed in her ſleep, both in her limbs and the muſcles of her face. Increaſed the *Tinct. Theb.* gut. x. and the *Vin. Antim.* gut. xx. She now takes 944 drops of the former in 24 hours; is exceeding languid and exhauſted, as at the two evenings paſt.

19th. Laſt night has had four hours ſleep, and this morning two hours more; had one thin watery ſtool in conſequence of ſeveral clyſters being again repeated; her cough 112 in a minute. At my evening viſit found her

 again

again very languid; ſpaſms ſtill more trouble-ſome whilſt aſleep; has had about three hours more ſleep; have increaſed the *Theb.* to 100 drops every three hours; her boluſſes repeated. Her intellects have all along been very clear, and her mind perfectly ſerene and reſigned.

20th. Slept laſt night at intervals about four hours, but little alteration in her ſymptoms; her ſtrength in general diminiſhes; repeated the *Jalap*; had one conſiderable evacuation to-day in conſequence; has ſpit up ſome bloody mucus, probably from the throat, owing to abraſion of the membrane, occaſioned by ſuch continual coughing. This evening I repeated her drops and boluſſes, by the concurrence of Dr. Lettſom, who viſited her with me again; and in order to be certain of the number of drops which ſhe ſhould take the next twenty-four hours, I took the pains myſelf to count them; which, with what the boluſſes contained, was eleven hundred and ſeventy.

21ſt. Her languor increaſes; her catches ſeem leſs violent, but not leſs frequent than

than before; her cough changed, and is now rather a hacking or ſudden convulſive check in her reſpiration, not eaſily deſcribed. Paſſes her water with great difficulty, and ſays ſhe has not ſtrength to force it away. Had about five hours ſleep in the night.

22d. Laſt night took much leſs laudanum than her uſual quantity, yet ſlept twelve hours in the laſt twenty-four. Her little ſtrength ſeemed now nearly exhauſted; the cough and catchings are as frequent as before, but more feeble; ſhe now complains much of a pain about the muſcles of the jaw, and along the interior part of the lower jaw, as well as in her ears. Her throat is alſo ſore; ſhe takes leſs nouriſhment, and the ſpaſm in her ſleep more feeble. I now leſſened the quantity of the *Theb.* from her preſent diſpoſition to ſleep.

23d. She ſleeps much, and now only takes 70 drops of the *Theb.* every three, four, or five hours, as her ſleep admits; appears unexpectedly better; her cough quite gone; the catchings ſcarcely perceptible, and with much

leſs pain: her ſpirits revive from a ſtate of depreſſion and languor to a conſiderable degree of cheerfulneſs; her voice, which has been kept ſo low as only to whiſper, has become quite clear and ſhrill as in health; ſhe took an inclination to drink ſome porter, which appeared to be of ſervice to her.

24th. Did not ſee her till evening; found her ſtill more recovered, and as great a cheerfulneſs as in health; ſhe was ſcooping out a raw apple with her injured hand, and eating it without the leaſt apparent difficulty; complains of leſs pain than yeſterday, and deſired to omit the opiates to-night, which I agreed to.

25th. Slept tolerably laſt night, not quite ſo well as when ſhe took the opiates; and ſays ſhe is not ſo free from pain in her right leg and arm; ſtill continues cheerful, and was able to ſit up to drink tea.

26th. Much the ſame as yeſterday, except a diarrhæa: for which I gave her *Pulv. Rhei. gr.* xi *Teſt. Oſtreor. pp.* ʒij. *Tinct. Theb.* gut. xx. *in ch.* iv. *div. capt.* j. *ſexta quaque hora.*

27th.

27th. Remains cheerful; her diarrhæa is relieved with one of the powders, though it made her ſick, and diſturbed her reſt during part of the night.

28th. Pretty free from pain; her chief complaint is weakneſs, eſpecially on the injured ſide, and in the abdominal viſcera: but concludes to be removed into the country to-morrow.

In this caſe we have not only an inſtance of the prodigious violence inflicted upon the conſtitution by this peculiar mode of wounding the nerves, which few ſurgeons are ſtrangers to; but there was the greateſt probable ground to expect that dreadful and too common diſeaſe, called the Locked Jaw. We have alſo as great reaſon to believe it was happily averted by the liberal uſe of opiates, combined with antimonials.

ARTICLE XXXIV.

Obſervations on the Effects of Emetic Tartar, by External Abſorption; in a Letter to J. C. LETTSOM, M. D. *&c. by* JOHN SHERWEN, *Surgeon, and* C. M. S.

Read Nov. 19, 1787.

ON the 18th of October 1785, at ten o'clock at night, I rubbed into the palms of my hands, with the aſſiſtance of a few drops of water, five grains of emetic tartar. I was at that time in perfect health. The firſt ſenſible effect was a conſiderable glow of heat upon the parts. In half an hour, as uſual, I dropt aſleep, and reſted well till four in the morning, when I awoke, contrary to my uſual cuſtom, and was ſenſible of a very ſlight nauſea; ſo ſlight that it might perhaps be only fancy. My ſkin burnt a little, and I was rather uneaſy; but in leſs than an hour after, I began to perſpire, and continued doing ſo, in a pleaſant manner, till my uſual hour of riſing; at which time the

the perſpiration encreaſing, I continued in bed till after ſeven; and am convinced that had I been able to continue longer in bed, I might have induced a copious ſweat by the uſe of warm diluting drinks. Upon riſing, and wiping off the perſpiration with a dry cloth, I found no inconvenience, except ſome little diſinclination to breakfaſt.

As the emetic tartar, in the form of a powder, though aſſiſted with moiſture, did not ſeem to rub in pleaſantly, I varied the form, by diſſolving one drachm in two ounces of water, which produced a ſaturated ſolution; part of the emetic tartar remaining undiſſolved at the bottom of the phial. At ten o'clock at night I again rubbed into my hands and wriſts eighty large drops of this ſolution, containing, as nearly as I could judge, nine grains of emetic tartar. The ſame quantity was at the ſame time uſed by two young men in my family, who did not know that it was a ſolution of emetic tartar; as I wiſhed to hear their account in the morning, uninfluenced by fancy.

I awoke at four o'clock as before, hot and rather uneaſy; my pulſe quickened as if I had drank wine. I felt ſome ſlight nauſea, and a periſtaltic motion. In about an hour the ſkin began, as before, to moiſten; and at ſix o'clock perſpiration came on. At this time I aroſe, and in the courſe of two hours found it act twice as a gentle laxative.

Both my coadjutors felt the burning ſenſations in the palms of their hands, and were both ſweated in the night. One was ſick the next forenoon; the other ſlightly ſick, and had a briſk evacuation by ſtool, and was cured of a cold which he had upon him at the time he went to bed.

For two or three days after this experiment, I was ſenſible of an encreaſed flow of urine, and ſome little tendency to looſeneſs; a thing very unuſual with me.

I prevailed upon a lady, of a very delicate nervous habit, who had a ſlight cold and inflammation in the tonſils, to try the ſame remedy, viz. Five grains of emetic tartar, rub-

bed

bed in with the aſſiſtance of a few drops of water. She ſlept as uſual; felt a burning ſenſation in the palms of her hands, and once or twice in the night awoke with nauſea, but no perſpiration. The ſame lady repeated the doſe in ſolution, to the quantity of ſeven grains. She experienced ſome ſlight perſpiration and nauſea. In the morning it had the effect of an eaſy doſe of phyſic: and throughout the following day ſhe was ſenſible that her whole ſyſtem was acted upon by the medicine. Its moſt ſenſible effect was a conſiderable increaſe in the flow of urine; and two or three days after, ſhe obſerved a raſh, with conſiderable itching all over her ſkin, which did not ſubſide in leſs than two days more.

A woman, aged fifty, had long complained of pain in her ſide, loſs of appetite, and chronic weakneſs, which ſhe attributed to a fall that ſhe met with ſix months before. At other times ſhe aſcribed her diſorder, as women at that period do almoſt every diſorder, to the menſes flying about her. It is moſt probable, however, that her illneſs was in a great meaſure owing to the drying up of an

ulcerous

ulcerous inflammation in her leg, which had for ſome years been attended with conſiderable diſcharge, and which had entirely ceaſed upon the application of a white powder, given by a neighbour.

I prevailed upon this perſon to rub ſeven grains of emetic tartar, with a few drops of water, into her ſide, and the region of the ſtomach, where her pain was chiefly felt. She rubbed it in freely with her own hand. After uſing three or four doſes, I aſked her what effect ſhe had obſerved? She ſaid that it ſearched her all over; that ſhe ſweated ſo profuſely, her ſhift and the ſheets might have been wrung; that ſhe was ſick, but did not retch.—I have the pleaſure to add, that ſince the uſe of the above remedy, her leg began again to diſcharge freely: and ſhe felt herſelf ſo much relieved, that ſhe deſired to have a continuance of the ſame medicine, and is now rubbing in ten grains every other night; and obtained a perfect cure from her complaints, which had been very obſtinate. Her complaints, however, at laſt put on an intermittent appearance, when bark produced a happy effect.

This

This will be conſidered as ſufficient evidence, that large quantities of emetic tartar may thus be introduced into the conſtitution with very little inconvenience. Can it be doubted, then, that this mode of adminiſtering antimonials muſt be infinitely preferable to ſwallowing, when we wiſh them to act on the general ſyſtem as alteratives? If a putrid, or a bilious colluvies, is to be evacuated from the ſtomach or inteſtines, a proper doſe by the mouth will always be preferred. How many patients, labouring under ſcorbutic, herpetic, and leprous eruptions, have perſevered in the uſe of antimonial wine for months, perhaps years, with little or no benefit? If antimonials are uſeful in theſe, or in any other chronic affections, let them in future be adminiſtered in the manner here propoſed; for thus the juices of the human machine may be ſafely ſaturated with antimony in its moſt active form, and a proportion of this valuable medicine may thus paſs through the ſyſtem in one week, without exciting irritation in the ſtomach greater than in twelve months by the uſual mode of adminiſtering it.

It

It may be proper to caution the patient againſt the uſe of acids at the time of going through a courſe of this medicine. I have reaſon to think that I was myſelf injured by inattention in this reſpect. I have already ſaid, that for three days after the external application of the ſolution of emetic tartar, I felt an increaſe both of the urinary and inteſtinal diſcharges; from which I concluded that I was ſtill under the influence of the antimonial particles floating in my ſyſtem. At this time I rubbed a few grains of emetic tartar, with my own hands, into the ſkin of a patient afflicted with a dyſenteric fever of a very malignant kind, which had evidently been acquired by infection: and from which I could trace the progreſs of infection to two other patients, who with ſome difficulty recovered.

I waſhed my hands carefully immediately after, and thought no more of what I had done. The next day I eat a ſmall bunch of grapes; on the following day another; and in the afternoon, having occaſion to go through a field of excellent turnips, of which

I am

I am remarkably fond, I was tempted to indulge my palate. In the night I was ſeized (ſoon after having been called up in the courſe of my profeſſion) with violent tormina, and almoſt inceſſant inclination to go to ſtool, with little or no evacuation. Often, after ſtraining ten minutes, not more than a few drops of mucus, ſlightly tinged with blood, would appear. In the morning I took infuſion and tincture of ſenna, with ſoluble tartar, and diluted moſt copiouſly with water-gruel and mutton-broth, with a view to increaſe the quantity of the diſcharge, but with little effect, as the fluids which I drank in ſuch quantities quickly paſſed off by the kidnies, without waſhing the ſmall inteſtines. The teneſmus continued with racking pain all day. At night I was quieted by the uſe of a teſtaceous mixture, with plenty of gum arabic, without having recourſe to laudanum. By the uſe of the teſtaceous mixture I got perfectly well in a few days; and generally found immediate relief as ſoon as the teſtaceous mixture reached my ſtomach, though the ſeat of my pain was low down in the inteſtinal canal.

Unable

Unable myſelf to determine whether this complaint was excited by the abſorption of emetic tartar *, or by infection, I leave the intelligent reader to his own reflections. The conſequence, however, was ſuch upon my health, that I could not help conſidering it as ſtumbling at the very threſhold; as it put a ſtop for ſeveral days to this career of experiments.

ARTICLE XXXV.

Obſervations on the Effects of Arſenic, by External Abſorption, by JOHN SHERWEN, *Surgeon, and* C. M. S. *Communicated by* J. C. LETTSOM, M. D. *&c.*

Read December 3, 1787.

HAVING ſo recently ſmarted, the reader may perhaps be ſurpriſed to find the next ſubject of experimental enquiry to be arſenic.

* I have, however, very little doubt but the complaint was owing to the emetic tartar, as there was not ſufficient length of time for infection to have taken place: and the relief from the teſtaceous powder was ſuch as might be expected from the chemical properties of the ſtimulant, and its affinity to the teſtaceous powder.

arſenic. I have long been anxious to hit upon ſome lenient mode of adminiſtering this powerful mineral, ſince the moſt valuable remedies have been diſcovered in the claſs of poiſons.

Monſieur Le Febure of Paris hath already publiſhed a work, in which arſenic is recommended for the radical cure of cancers. His mode of adminiſtering it is ſimilar to that in which corroſive ſublimate hath long been given in this country in the lues venerea; but as the practice does not appear to have been adopted with us, nor do we find that it has made any great progreſs in France, it is reaſonable to conclude, that it is either leſs efficacious than Monſieur Le Febure aſſerts, or the idea of its poiſonous property ſtill operates ſo very powerfully on the minds of practitioners, as to ſtand in the way of proper and repeated trials.

Reflecting on this ſubject, it occurred to me, that, as arſenic is but little ſoluble in water, it would be neceſſary to procure a more

more ſoluble preparation, in order to inſtitute fair and judicious trials.

I flatter myſelf I have been fortunate in my endeavours to procure ſuch a preparation; which, deteſting every idea of a noſtrum, I here publiſh, in hopes that ſome of my ingenious readers may aſſiſt me in perfecting and rendering uſeful to mankind.

Arſenicum ſolubile vel tartariſatum.

℞. *Arſenici albi, pulv.*
Chryſtallorum Tartari ſingulorum, ℥ij.
Aquæ puræ lbj.

Coque per horam dimidiam; deinde cola per chartam, et rite evaporatum ſepone quo chryſtalli formentur.

It will immediately occur to the intelligent chemiſt, that this is a preparation formed on the plan of the emetic tartar of the London Diſpenſatory; which, after various trials, I conceive to be the beſt. It gave me pleaſure to obſerve that I could thus, with little

little trouble, produce an arſenical tartar ſoluble in water, of a beautiful appearance.

On the 27th of October I made the firſt trial of this medicine upon myſelf: a duty which I think incumbent on every man who wiſhes to ſtrike out new diſcoveries in medicine, and more eſpecially when he attempts the uſe of dangerous drugs. At ten o'clock at night I rubbed one grain very eaſily into the palms of my hands. I ſlept well as uſual, and in the morning thought I could obſerve a very ſenſible encreaſe in the flow of urine; but no other effect. I repeated the experiment the next night, in conjunction with Mr. Thomas Ives and Mr. Henry Boutflower: two young gentlemen under my care. We all experienced the ſame effect, viz. ſome increaſe in the flow of urine; but nothing elſe remarkable.

On the 29th we repeated the experiment, with two grains each. The encreaſed ſecretion of urine was remarkable in us all; and I was myſelf ſenſible of ſome degree of nauſea in the morning. Hence it is evident,

 that

that the medicine acted upon the general ſyſtem.

On the 30th at night, I was determined to try the ſame medicine inwardly, according to the following preſcription:

℞. *Tart. Arſenic.* gr. j.
Sacchar. alb. p. ℥ß.

Accurate miſceantur, et in partes xvi. *equales dividentur.*

The ſmallneſs of the doſe may perhaps wear the appearance of timidity; but in a buſineſs of this kind it is impoſſible to act with too much caution, eſpecially as the quantity can be encreaſed at pleaſure. It was ſwallowed undiluted, and excited ſome uneaſy ſenſations in the œſophagus, not unlike the heart-burn; and ſmall as the doſe was, I could perceive its effects as a very powerful diuretic. The next day it was repeated by my two aſſiſtants and my coachman; and we all experienced its effects as a diuretic.

November

November 29th, at ten o'clock at night, I ſwallowed half a grain, diſſolved in half an ounce of water. I was here, however, deſerted by my fellow-labourers; and from ſome particular hurry the next day, I either neglected to make a minute of the effect, or my paper has been miſlaid; and from that time till now, other ſubjects having engaged my attention, I have never repeated the experiment. I truſt, however, that what I have already offered, will induce ſome other perſons to proſecute the enquiry.

Arſenic is evidently the baſis of every celebrated empirical remedy for cancer. Happy will it be for mankind if it ſhould be diſcovered really to poſſeſs a ſpecific power over this tremendous infection, which, like the venereal virus, I am perſuaded, and truſt I ſhall hereafter be able to prove, gets admiſſion into the human ſyſtem by external abſorption. Should it fail however in this moſt deſireable end, I ſhall ſtill think myſelf happy, if, in my ſearch after a remedy for cancer, I ſhall have ſtumbled upon an efficacious one for dropſy.

The few experiments here recorded, prove it to be poſſeſſed of great powers as a diuretic, independent of that further power which it is well known to poſſeſs, of exciting the moſt heartfelt ſickneſs and nauſea; on which I believe often depends the efficacy of various emetics and hydragogue cathartics, in exciting the action of the abſorbent veſſels. During exceſſive ſickneſs, the whole frame is ſtrangely thrown into agitation; the remoteſt parts of the ſyſtem ſympathize with the ſuffering ſtimulated ſtomach; ſo that we need not be ſurpriſed to hear that excellent obſerver of nature, Sydenham, exclaim, " that there muſt be ſome ſecret paſſages through which the waters are carried from the cavity of the belly to the inteſtines; for we daily obſerve," ſays he, " that hydragogues evacuate ſuch a great quantity of water from the belly by ſtool, as if it were contained in the very inteſtines *." And in another place, ſpeaking more particularly of the action of emetics, he has theſe words: " Whatever theſe paſſages are, through which the water

* Vide p. 190.

paſſes

paſſes from the cavity of the belly to the inteſtines, I am certain that vomiting, provoked by the ſaid emetic, viz. the infuſion of crocus metallorum, does powerfully evacuate the ſame, and not only downward by ſtool, but alſo upward, through the ſtomach and mouth, in the act of vomiting; for after vomiting twice or thrice, the waters do not ſeem to be drawn ſo much by the ſecretery force of the medicine as to run with a full ſtream, the ſtoppages being broken and opened; which appears plain enough, by the frequent and impetuous irruption of them betwixt the ſpaces or intervals of vomiting."

Sydenham, though a ſtranger to the true nature of the abſorbent ſyſtem, yet, as an experienced practitioner, perhaps knew better how to excite the action of that ſyſtem than all the gentlemen who have written on the ſubject. Perhaps in proportion as we have encreaſed in our knowledge of the phyſiology of the abſorbents, we have fallen off in our practical ſkill in the cure of dropſy.

With what confidence does Lifter prefcribe the *Succus Ebuli* in the cure of dropfy: a remedy which modern practice is almoft an entire ftranger to.

I hope the reader will pardon my introducing the following cafe here, which fhews the extraordinary power of a brifk emetic in reducing a dropfy, and certainly not inapplicable to the prefent fubject.

William Davis, who had laft year been relieved, but not effectually cured of a dropfy in the London Hofpital, applied to me on the 14th of March 1787. His legs, thighs, belly, and face, were very tumid; and the fcrotum was nearly as large as his head. I determined the next day to make two deep incifions into the fcrotum; but firft refolved to try the effect of a fmart emetic. I prefcribed five grains of emetic tartar, rubbed up with fugar; which acted agreeable to my warmeft defire. When I faw him the next day, I could fcarcely believe the evidence of my own eyes. The reader will eafily judge of the aftonifhing effect, when he is informed

that

that the ſcrotum was corrugated almoſt to its natural appearance. I followed up the cure with large doſes of cream of tartar, which had alſo a happy effect; for in a few days his legs and thighs only ſhewed marks of dropſy; but on the 27th of the ſame month, I had reaſon to apprehend I ſhould yet loſe my patient, for he was now ſeized with a new complaint, viz. intenſe pain in the head, with inability to bear the light; a burning ſkin, and an eye and countenance which indicated the preſence of a degree of inflammation; which till then I thought incompatible with dropſy. I bled him to the amount at leaſt of ſixteen ounces, which almoſt immediately enabled him to bear the light of the window.

This diſorder ſoon ſhewed itſelf to be a very formidable intermittent, complicated during the paroxyſm with delirium, and ſo ſtrong an inflammatory diatheſis, as to forbid the uſe of bark; which indeed I was not very ſolicitous to uſe, as I conceived that this new diſeaſe might effect a perfect cure of the former. I ſuffered the diſorder to

run on till the 4th of April; when I trusted that the inflammatory disposition was so far quelled, that I might safely use the bark. Such was his situation at that time, it was difficult to form an opinion whether it was safer to administer or postpone the use of bark. The pressing symptom, however, being a regular return of paroxysm, I ventured upon a free use of the red bark, by which it was immediately checked; but the pain in the head continued great.

On the 6th, I applied a large blister to the nape of the neck.

On the 15th, I found it necessary again to have recourse to the bark, and to introduce a large and deep seton into the nape of his neck. From that time to the present he has continued regularly to recover; and has at this moment some symptoms only of dropsy in his legs. His appetite and countenance are good*. He is a young man in the prime

* If the dropsy, however, arose from a rupture of lymphatics, there will be reason to apprehend a return of it again.

of

of life; only thirty-ſix years of age, and naturally of a robuſt conſtitution. His diſorder came upon him laſt ſummer, after violent exerciſe in a very hot day. In about the ſpace of two hours and a half, he informs me that he unloaded two waggons, containing ſixty-five quarters of oats. He carried them all up a pair of ſtairs, and ſome of them into the garrets, in ſacks containing ſix buſhels each. He drank a good deal of cold ſmall beer at the time, and took to his bed the next day. From that time he gradually fell into a bad ſtate of health. About a fortnight after I ſaw him with ſwelled legs, and other ſymptoms of dropſy. Soon after, he went into the London Hoſpital; from whence he returned much relieved, but gradually fell again into the ſame ſituation in which I found him at the commencement of this account.

But to return to the ſubject of my paper. Should any of my readers be ſtruck with the importance of this enquiry, I would wiſh to encourage him, by obſerving that there once was a time when practitioners would have dreaded

dreaded the internal uſe of mercury, antimony, and perhaps hemlock, as much as we do at this day the internal adminiſtration of arſenic.

ARTICLE XXXVI.

Hints on the Management of Women in certain Caſes of Pregnancy, by Mr. JAMES LUCAS, *one of the Surgeons of the General Infirmary at Leeds. Communicated by* J. C. LETTSOM, M. D. *&c.*

Read September 8, 1788.

PRESUMING that the following hints may not be foreign to the deſign of your publication, I take the liberty of ſubmitting them to your conſideration, in hopes that they may prove as beneficial to others as I have found them uſeful in my own practice.

In conſequence of my relating to the late Dr. Fothergill the utility of abſtinence in facilitating

facilitating difficult labours, I was favoured with an account of his ſucceſs in preventing abortion, even in very delicate women, by preſcribing a ſparing diet about the ſame period of pregnancy at which they had formerly miſcarried.

Although in moſt ſyſtematic writers on midwifery the ſubject of abortion, when immediately threatened, is fully diſcuſſed, yet few obſervations are to be met with reſpecting its prevention in future geſtations. Thoſe who are ſubject to miſcarriage are often unhealthy, and of delicate habits. As the occaſional cauſes of abortion are ſeldom ſuddenly ſucceeded by the ſymptoms which immediately produce it, the preventive means are generally applied too late to be of material advantage. After a woman has been ſubject to miſcarriage, unleſs when it has happened from an external injury, there ſeems to be a peculiar diſpoſition to it about the ſame period of the next pregnancy, and even from ſuch ſlight cauſes, that I have known it appear to be produced from a fit of laughter; while, on the contrary, thoſe who have

have never miſcarried are ſo little liable to abortion, that attempts to procure it have often rather endangered the life of the mother, than accompliſhed the baneful deſign.

Some years ago, I was called to a patient who had taken about a drachm of powdered cantharides, which brought on frequent vomiting, violent ſpurious pains, a teneſmus, and immoderate diureſis, ſucceeded by an acute fever, which reduced her to extreme weakneſs; yet no ſigns of miſcarriage appeared; and about five months after, the woman was delivered of a healthy child.

Accidents, or an acute diſeaſe, may be productive of abortion at any period of geſtation; but it uſually occurs about the third or the ſeventh month; and its prevention will be found more eaſy in the former than the latter ſtage. A ſtrict attention to the time at which the miſcarriage happened before, is neceſſary. By dating the commencement of pregnancy near a fortnight after the laſt menſtruation, the third month may be nearly aſcertained; and by obſerving the time

time of quickening, the ſeventh month may alſo be ſufficiently known. If women would be thus exact in their calculation, as to the time when parturition might be expected, it would ſave themſelves, as well as their attendants, much trouble; and it would rarely happen that the time could be miſtaken more than a fortnight.

The preventive means, to which I would wiſh to ſolicit the attention of practitioners in midwifery, conſiſt in ſtrengthening the habit previous to a ſubſequent pregnancy; in taking away a few ounces of blood a week or two before that period of geſtation at which the laſt miſcarriage had happened; in adviſing a more abſtemious or leſs nutritive diet; in prohibiting the uſe of fermented liquors, or of any ſevere exerciſe, eſpecially ſuch as may affect the parts more immediately concerned.

The following caſe may tend to illuſtrate the practice:

In

In 1784 I was consulted for a patient about thirty years of age, who had, in the space of four years, miscarried as many times, although she had before been the mother of two healthy children. Her constitution was so delicate, that her friends thought her consumptive. By the use of tonics, Buxton waters, and exercise on horseback, her health was much amended.

The latter end of December 1785, she began to have such complaints as frequently attend the early part of pregnancy. The catamenia had ceased the 2d of November. January the 21st, supposed to be prior to the period at which she had before miscarried, I took three or four ounces of blood, and recommended a more sparing diet; particularly in regard to animal food and fermented liquors. Having strictly pursued this plan for a fortnight, she was advised to return gradually to her accustomed mode of living. Although she had before miscarried about the third month, she now passed that time without having any menacing symptoms. On the 28th

28th of March the motion of the fœtus was firſt perceived. Previous to the ſeventh month, her habit was ſo much reduced by the treatment requiſite for an inflammatory fever that attacked her about that time, as to obviate the neceſſity of repeating the abſtemious plan; and which was alſo leſs indicated, from her never having miſcarried in the latter ſtage of geſtation.

After having completed the full time of pregnancy, with fewer complaints than uſual, on the 17th of Auguſt ſhe was delivered of a healthy child, to which ſhe gave ſuck; and has ſince enjoyed a good ſtate of health. Such treatment is chiefly adapted to prevent abortion about the third month; and no great expectation can be had from it in the latter ſtage, eſpecially if the placenta is attached to the os tincæ, and proves the cauſe of uterine hæmorrhage. It has failed even in a few caſes of early miſcarriage; but it has more frequently been found beneficial. I have ſometimes omitted a recommendation of it, where future experience has convinced me of its utility. It is requiſite but for a ſhort

ſhort time, may eaſily be varied, and has been found to relieve complaints of the ſtomach often attendant on ſuch ſituations; nor does it in any reſpect interfere with the uſe of cold bathing, or other corroborants during the remaining part of geſtation.

THE reluctance which every practitioner muſt experience, who is under the neceſſity of having recourſe to embryotomy, induced me to reflect upon the moſt probable means of preventing, as far as poſſible, the exigency of this operation.

Stout healthy women, and ſuch as are accuſtomed to indulgences in diet, have been obſerved to have large children; and vice verſa. A country practitioner, in a letter to Dr. Smellie, obſerves *, "I was called to a woman in labour, who had been extremely hearty during pregnancy, and was

* Vol. iii. p. 55.

uncommonly

uncommonly big. The child weighed ſixteen pounds."

An unexpected and happy event has often been the reſult of waiting for the efforts of nature in tedious labours; eſpecially where the fœtus has not proved of an uncommon ſize, and where the bones of the head have been pliable. Pregnant women frequently retain but little nouriſhment for ſome months, without any pernicious effects; and a change from a full to a ſparing diet, accompanied with an increaſe of exerciſe, has been found to reduce corpulency, as well as to aſſiſt the cure of many obſtinate diſeaſes.

Theſe obſervations ſuggeſted to me, that, by an abſtemious diet followed by the mother, the growth of the fœtus might be ſomewhat reſtrained, and the bones of its head be found more yielding, without its proving injurious either to the health of the mother or child.

Some years ſince, I began to preſcribe a regimen to ſuch, in whom the pelvis was ſo

 contracted

contracted as already to have required embryotomy; and it afterwards occurred to me, that a similar plan might be still more beneficial to those in whom the difficulty of labour depended on the uncommon size of the fœtus, as well as to those who became pregnant at a more advanced age than usual. Yet difference of habit, and the nature of the case, may require some variation in the mode proposed, and which must be left to the discretion of the practitioner. The treatment which I have advised is, that of temperance in diet, a diminution of the usual quantity, or change in the quality of the food; an increase of exercise, the occasional loss of a few ounces of blood, and the moderate use of cooling aperients. This regimen has been more strictly enjoined in the last months of pregnancy, from a persuasion that an observance of it in the former months would avail little, if neglected in the latter. I have generally found the practice successful, in proportion as it has been regularly pursued; and it has been remarked by the attendants, that the infant was less than usual.

Where

Where the ſize of the fœtus alone may be ſuppoſed to create the difficulty, purſuing the plan for a month or two before parturition may be ſufficient; but when the pelvis is diſtorted, the rules ſhould be early commenced, and adhered to with the ſtricteſt attention. In a caſe where in conſultation it had twice been judged neceſſary, from the curvature in the pelvis, to have recourſe to embryotomy, by ſuch treatment the woman's next labour was remarkably leſs tedious, and the child was delivered without difficulty. One who had had uncommonly ſevere and lingering labours, had afterwards a much eaſier and quicker one, from the child proving of a ſmaller ſize; and another who had been delivered of two very large children, the firſt ſtill-born, and the other for ſome time apparently without life, has ſince had leſs and more lively children, without any hindrance ariſing in theſe caſes from the preſentation. This method has diſappointed me in one or two inſtances only; and even in theſe I am not perfectly ſatisfied that the regimen was ſtrictly adhered to; but in no caſe whatever have I found it in any reſpect prejudicial.

When patients have cheerfully conformed to the rules, it has not been unuſual for them to remark the additional advantages. One who had been in former lyings-in ſubject to an inflammatory fever, imputed her eſcape from it to the abſtemious mode of living ſhe had ſo attentively obſerved.

As the diſtortion of the pelvis is rarely marked by any outward ſymptoms, or an immoderate ſize of the fœtus, in the firſt inſtance ſuſpected we can ſeldom have it in our power to direct ſuch treatment, until the neceſſity of it has been pointed out by former ſufferings; yet when pregnant women indulge themſelves in eating to exceſs, and at the ſame time uſe little exerciſe, we may with propriety adviſe a different conduct. There can be little expectation of ſucceſs where the bones of the pelvis are ſo diſtorted that the Cæſarian operation is likely to prove the only reſource; but in ſuch deplorable caſes, what is propoſed by Dr. Cooper in the London Medical Obſervations *, ſeems warranted.

* Vol. iv. p. 271.

Women

Women who have been confined to a fitting pofture by the nature of their occupation, or who have been weakened by rheumatifm, or any other chronic difeafe, are liable to contract gradually a curvature in the pelvis, and this where no fuch malconformation before exifted; and when they have already had natural and common labours.

Some fuch unfortunate cafes have fallen to my lot, where delivery could not be effected without operative means. The majority of fuch cafes have been the wives of manufacturers; and confultations were previoufly obtained. It would be well if this unhappy change in the pelvis could be either prevented or early difcovered, its caufe inveftigated, and a ftop put to its progrefs.

Although the fubjects who may require fuch regimen are generally of an inferior rank in life, yet they have an equal claim to our compaffion; and fuch means may happen to preferve the offspring of nobler blood.

ARTICLE XXXVII *.

Some Remarks on the Influenza that appeared in Spring 1782, *in a Letter to* Dr. LETTSOM, *by* R. HAMILTON, M. D. *of the Royal College of Physicians, London, Member of the Medical and Philosophical Societies of Edinburgh, and of the Medical Society of London.*

Read November 27, 1787.

SIR,

AT your defire I fit down to inform you of the refult of my practice, and the few obfervations I made on the influenza of 1782.

* Although this and the following article have lain fome years with the Medical Society, the want of opportunity having hitherto prevented their publication, yet the fubject on which they treat is no lefs interefting to pofterity than if they had been printed much earlier; and appearances of a catarrhal affection refembling the influenza, on which they treat, having recently occurred, the prefent time was deemed eligible; more efpecially as no late mifcellaneous publication contains a complete account of the difeafe.

1782. Though I know it can add little to what you are already in poſſeſſion of, yet the deſire I feel for the encouragement of every ſcheme which tends to the improvement of that ſcience, into the principles of which I have been initiated, induces me the more readily to add my mite.

From the 1ſt of January this year, till about the end of May, throughout moſt places in the kingdom the weather was uncommonly unfavourable. Snow, froſt, rain, wind, lightning, and thunder to a great degree, by turns conſtituted the weather in the neighbourhood where I remained.

The ſpring was conſequently cold; and the tillage of the land was retarded by the almoſt conſtant rains that about this time marked the ſeaſon.

With regard to the time of its firſt appearance in the places where I then practiſed, as far as I could learn, it was in the firſt week in May. Dr. Grant dates its commencement in the ſuburbs of London ſo early as March.

For ſome time at leaſt before it appeared at St. Albans, which is only 21 miles from London, our accounts from the capital told us of its commencement there. By the middle of April, the Dr. ſays it had ſpread itſelf all over London *. Others, however, deny it to be in London till May; and ſay that it raged moſt about the 20th of this month.

St. Albans and Luton are only 10 miles diſtant. It appeared ſeveral days ſooner in the former than the latter. Luton does not lie on the great road from London, therefore the communication with it is leſs.

My practice took in the compaſs of ſeveral villages, viz. Colney, St. Albans, Redburn, Market - Street, Harpenden, Saundrige, Wheathamſtead, Hatfield, and Bell-Bar. By this means it lay in a large ſcope of country, many miles in circumference. This afforded me ſome opportunities of remarking the progreſs of the diſeaſe, and ſymptoms with which it was attended.

* Vide Grant on Influenza.

Between

Between St. Albans and Redburn it is only four miles and a half; yet it was later by ſome days of appearing here than in the other, as far as I was able to learn.

Market-Street is about four miles north-weſt of Redburn. Here likewiſe it was later of appearing than at the other.

Dunſtable is between ſeven and eight miles northward, on the ſame road; and Luton five miles from it, ſouthward. At theſe two places it ſhewed itſelf much about the ſame time.

Harpenden ſtands half way between Luton and St. Albans. This was not only the lateſt place where it appeared, but fewer ill here, comparatively, both of the inhabitants and the ſoldiers quartered in it, and under my care. Perhaps this may be, in ſome meaſure, owing to its ſituation favouring leſs its exciting and prediſpoſing cauſe.

The houſes in this village are ſcattered irregularly over a conſiderable piece of ground.

ground. Moſt of them not only ſtand ſeparately, but at ſome diſtance from each other. The ſtreet, if it may be called ſo, except near the north end of the town, is in breadth near a musket-ſhot; a pretty wide common extending down it. In this common (or ſtreet) ſtand many trees; but not ſo cloſe as in any degree to prevent free perflation. At the ſouth end of the village is a ſpacious common, covered here and there with heath. The town ſtands rather on an eminence, and the ſoil of a light dry nature, when compared to Luton, Redburn, and Dunſtable.

Saundrige lies about two miles and a half to the ſouth-eaſt, and is more encompaſſed with wood. About the ſame diſtance likewiſe, but in a more northerly direction, lies Wheathampſtead. Fewer were ill in Saundrige than Wheathamſtead, according to the ſize of the town.

Both Luton and Wheathampſtead lie very low; but chiefly Luton, which is buried in a ſort of dell, formed by hills near it, on the ſouth-weſt and north-eaſt. Through both

runs

runs a rivulet, the banks of which in many places are flat, ſuffering its waters eaſily to overflow. This always happens when rains fall more than ordinary; whereby marſhes are formed along them, which ſometimes the heat of even a warm dry ſummer is not ſufficient completely to exhale. In this part of the country there is alſo much wood.

North-weſt of Luton, on the road to Dunſtable, it is flat. A large ridge of hills runs from Dunſtable to Luton, facing the eaſt; and of ſo chalky a nature, that in many places no ſwerd grows to cover it. For a conſiderable way eaſt of this ridge it is flat; the river aforeſaid winding down it. This and the wood always keep a greater quantity of moiſture in theſe places; hence the air is colder from the exhalation, and the ground, if the weather be at all moiſt, is wet and dirty under foot. I would aſſign this as the reaſon for the more frequency of intermittents along the banks of this ſtream, than in any other part of this country, ſpace for ſpace.

Dunſtable

Dunſtable is ſituated more on a flat than the two laſt towns: it may be ſaid to lie in a wide vale, formed by ſome hills at ſeveral miles diſtance. A large pond of water ſtands in the midſt of the ſtreet, where horſes are watered, and carriages waſhed. In St. Albans we find a ſimilar one. Theſe may be conſidered as no addition to the health of the inhabitants, eſpecially to thoſe living near them, and more immediately in the way of their effluvia.

The water in the pond at Dunſtable, as the weather became warm, grew very corrupt; which was denoted not only by its ſmell, but by its green colour. I have likewiſe ſeen dead dogs lying in it; and indeed it may be ſaid to be a receptacle for much filth toſſed into it by the careleſſneſs and inadvertency of the inhabitants.

Colney is on the great road, three miles nearer London than St. Albans. The diſeaſe appeared about the ſame time here as at St. Albans. The town is ſmall, and, like Harpenden, ſcattered. It is waſhed alſo by a river;

river; and the ſoil around appears to me rather of a lighter nature than ſeveral of the places mentioned.

Hatfield is diſtant only five miles from St. Albans, and in a more northerly direction. It is ſituated on the great north-eaſt road from London; ſtands partly on a hill, and partly on a ſteep declivity. Bell-Bar is only two miles from it; the country all around is alſo thickly covered with wood. Though Hatfield is only eighteen miles from London, yet the diſeaſe was later of commencing there than in the capital, notwithſtanding the conſtant paſſing of ſo many ſtrangers to and from London, by the ſtage-coaches, waggons, and other conveyances. The inhabitants and ſoldiers here ſuffered conſiderably. Each of theſe towns contain ſeveral hundred of inhabitants. In ſeveral of them weekly markets are held. Saundrige, Bell-Bar, and Colney, are ſmaller than the others.

The diſeaſe did not appear in Yarmouth till the firſt week in June. This town is diſtant from London 123 miles to the north.

Ipſwich

Ipſwich in Suffolk is diſtant from the metropolis 70 miles on the north-eaſt, or rather eaſt road. It was alſo the firſt week in June when it appeared here; nor then till it was brought there from London. A ſurgeon at Ipſwich happened to be in London at the time it raged in it: he left it on the laſt day of May, and arrived at his houſe about eleven next morning. "I left town," he ſays, "the laſt day in May at night, and was then ill of it. I had none under my care then in it. A few days after I had ſeveral, but none ſo much debilitated as myſelf." From him it ſpread through all the town.

At Stamfordham in Northumberland, it alſo appeared about the firſt week in June*, according to my correſpondent; it ſhewed itſelf much about the ſame time at Newcaſtle on Tyne. It diſappeared about Stamfordham in the third week of Auguſt.

In the places already deſcribed, where my practice chiefly lay, it may be ſaid entirely to

* My correſpondent's letter is dated July 8th, 1782, and ſays, "The influenza now rages among us."

have

have ceaſed about the middle of June. But juſt at this time a few dry, windy, and colder days than what had preceded, ſucceeded our moiſt weather. This produced ſeveral peripneumonic complaints. Some, not ſufficiently aware of the diſtinction, and having their minds prepoſſeſſed with the prevalence of the late diſeaſe, miſtook, or rather confounded this intercurrent complaint with the other; though, as it ſeemed to me, the diſtinction might be eaſily made.

In ſuch as I viſited under it, there was neither coryza, cough, ſneezing, nor pains in the forehead, back, or loins; nor did that degree of debility, ſo characteriſtic of the influenza, attend it; inſtead thereof, I found a ſtrong full pulſe, and ſhort reſpiration or a catching in taking breath, with fixed pains in the breaſt and ſides.

The miſtake was not however attended with any miſchiefs; for they bled their patients; found the blood ſizy; and in ſome caſes repeated it, they affirmed, with advantage. The diſeaſe was ſtill termed the Influenza;

fluenza; and they now contended that *V. S.* in it was altogether neceſſary; thus making the ſizineſs of the blood a pretext for *V. S.* and the criterion whereby they were to be guided.

But did we think it proper to enter on the ſubject here, we might with propriety contend, that it is not always to be held as the mark of the phlogiſtic diatheſis prevailing in the habit.

Symptoms.

As to the ſymptoms with which the influenza was attended, they were various in various perſons, according to the ſtate of the habit at the time of the attack. The firſt victims of its fury were the ſoldiers; and the firſt ſymptoms I perceived, were a great cough, ſtraitneſs about the breaſt, conſiderably diſtended. The patients generally complained of a ſtoppage in the trachea; giving them the ſenſation of a ball lodged there. A coryza, or running of a thin acrid mucus from the noſe, always took place, ſo as to excoriate the upper lip, and

vellicate

vellicate the ſchneiderian membrane. A violent ſneezing; a pain of the head, much encreaſed by this laſt ſymptom, and moſt ſevere in the courſe of the frontal ſinuſes. A ſoreneſs over the eyes, chiefly about the eye-brows: which they ſaid was ſeated in the bone. This rendered the eyes ſtiff, and painful to be opened; nor could they bear a ſtrong light. A rheum alſo diſtilled from them, not unlike what we ſee in the meaſles. Univerſal pains over the body; in moſt only a ſlight fever; in others it ran very high, with a conſiderable acceleration of the pulſe. Faintneſs; ſome, though no great degree of thirſt; the pain of the breaſt ſeldom felt but on attempting to cough. Then it reſembles the pricking of pins; but it was ſeldom or never felt ſo low down as the cartilago enſiformis. The throat and mouth burns with heat; with an uncommon ſmarting over the fauces. Theſe and the tongue dry, and ſomewhat parched. In two patients I remember a parched tongue was preſent to a great degree; here the thirſt was greater. Some bled at the noſe; and one of my patients had abſceſſes formed in both his ears, which

which burſt, and continued to diſcharge for ſome weeks after. A diarrhæa was not a common ſymptom; yet I found it in ſeveral. Appetite in many was impaired; a nauſea alſo in ſeveral caſes took place. Little ſleep; and this little for the moſt part broken and diſturbed with incoherent dreams. Pulſe by no means hard. In ſome, hoarſeneſs and frequent hawkings up of mucus; in others, little or none.

The heat that ſucceeded the cold, which more or leſs marks every febrile paroxyſm, ſometimes went ſo far as to be followed by perſpiration. In many of my patients this did not happen. The ſkin remained dry. I ſeldom found the belly coſtive; the face ſometimes ſwelled, and the eyes appeared ſunk in it; as we often obſerve in the eryſipelas, weakneſs of the joints of the knees on motion, and a great proſtration of ſtrength.

In the neighbourhood of Stamfordham, my correſpondent ſays, and about the neighbourhood of Newcaſtle on Tyne, it was accompanied

companied with colic pains, and cramps in the region of the abdomen and ſtomach: and ſome there alſo had a purging; ſome had ulcers in the throat and fauces; but ſuch as I had occaſion to obſerve, were very ſlight. This was rather a rare occurrence. Many had a ſlight vertigo; but few of my patients had delirium, though I have heard of its being found frequently in the practice of others. Though a great faintneſs and debility took place commonly, yet fainting fits, as mentioned by ſome, except in one patient, and that after V. S. ſeldom or never happened among my patients.

Fits reſembling an ague have been mentioned as a concomitant of the diſeaſe; and in the more marſhy parts of the iſland. I doubt not of their exiſtence; and that the influenza was frequently accompanied with a remittent fever; while in the more dry and open ſituations it would partake more of peripneumony. Huxham found this the caſe. "I well remember," ſays he, "that the catarrhal fever which ſpread through all Europe, under the name of Influenza, in the

 ſpring

ſpring 1743, frequently became pleuritic and peripneumonic; and as frequently, after two or three days, ran into a quotidian or tertian; the difference of the conſtitutions of the patients thus altering the nature and form of the diſeaſe *."

In the villages where my practice lay, I do not remember to have met with any efloreſcencies on the ſkin. I find this was a ſymptom obſerved during the epidemic at Bath, as well as a redneſs and ſoreneſs of the throat; from whence Dr. Falconer imagines that there is a ſimilarity between it and the ſcarlet fever, as deſcribed by Dr. Withering of Birmingham †. A ſurgeon in Beccles informed me, ſome of his patients had not only a foul tongue, but ulcers on the tonſils. He mentioned none that had red ſpots on the ſkin.

Age and Conſtitution moſt liable to the Influenza.

With regard to the age moſt liable to the diſeaſe among my patients, I think the mid-

* Vide Huxam on Fevers. Art. Intermitt.

† Vide an Account of an Influenza at Bath, by Dr. Falconer.

dle

dle age felt it moſt, *ceteris paribus*. I mean from ſixteen to forty-five, or ſo; but few of any age, ſex, or temperament, eſcaped it. When I ſpeak thus, I am to be underſtood of thoſe in good health before its attack; for with regard to people in general, the infirm, the valetudinarian, and if old, the more in proportion ſuffered moſt.

I had many opportunities of obſerving the influence of the weather, in rendering it more violent, in a houſe where the huſband, wife, and three daughters were ill at once. The wife was by much the moſt ſeverely handled; next to her the huſband. They kept a public houſe and brewery; to the latter of which they gave more attention than the daughters, whoſe employment conſiſted in waiting on their cuſtomers within doors.

A boy of about twelve years of age, of a very ſtirring diſpoſition, ſuffered ſeverely; yet eſcaped the diſeaſe, though the reſt of the family had been ill for ſome time, till after bathing with other boys in the river, and remaining there longer than prudent, when he

was ſeized next day with the influenza. We may add to this, that he was a valetudinarian for a long time before; but had lately overcome, in a great meaſure, all his complaints.

To corroborate the remark, that the weather, &c. had great influence in modifying it, not only at St. Albans, but the other villages, the ſoldiers were firſt ſeized with it, and were more violently handled than moſt others. Soldiers are not only lighter clothed, but worſe fed, worſe lodged, and more expoſed to all the viciſſitudes of the weather than moſt other deſcriptions of men.

An account from Aberdeen ſays, "The diſeaſe rages here; and it is rather ſingular that the ſoldiers are firſt attacked by it, and more ill of this deſcription of men than any other." If we allow the ſame influence to the weather for which I contend, there will appear nothing ſingular in the caſe. In a word, the fact is well eſtabliſhed. The ſame remark was made in Dublin; for we find 700 ſoldiers there labouring under it at once, unable to do their duty in barracks.

An account from Utrecht informs us of their having no leſs than 3000 ill of it.

With regard to the fleet, where the influence of the weather likewiſe prevails, as the crews are much expoſed to the open air, both our own, and that of other powers, were great ſufferers.

Among others of our own veſſels, the Stag and Stout privateers ſuffered greatly; for on coming into Dublin harbour, moſt of their crews were ill of it. From one of our ſhips, it ſeems no fewer than 300 were put on ſhore under it; and out of another, 400.

In the Nemeſis frigate, 70 were ill at once. This I had from an officer belonging to her, who was himſelf ſo ill, that he had not at the time I ſaw him recovered from its effects, though at the diſtance of four months from the attack.

Another inſtance that the weather had much influence in modifying it, is as follows:

A young gentleman at Luton, about twenty-three, of a volatile turn, and lately a valetudinarian, but who, for eight or ten

 weeks,

weeks, had ſo far recovered as to be able to follow his amuſements, and who, for this purpoſe, generally walked or rode, whether the weather was favourable or not, ſeveral hours a day, often at the ſame time indulging himſelf freely in the glaſs, was at laſt ſeized with the epidemic, and ſuffered ſeverely. We may place this gentleman, in many reſpects, in the ſituation of a ſoldier, with regard to the irregularity of his life, and expoſure to the viciſſitudes of the weather.

The delicate alſo, and the valetudinarian, in all my obſervations, were great ſufferers; and ſtill greater in proportion as they were expoſed to the viciſſitudes of the weather. Others in different parts of England have alſo made the ſame obſervation. A ſurgeon at Newbury in Berks, writing to me on the ſubject, has theſe words: "A few infirm and bad habits ſunk;" as hardly any valetudinarian eſcaped it; and as in theſe it generally appeared with the greateſt ſeverity, ſo, for the moſt part, it was attended with dangerous ſymptoms only in patients of this claſs. One woman at Luton fell into a phthiſis pulmonalis after it.

Both

Both the ſtates of old age and infancy was more exempt from it than any other; I mean ſuch as were in good health. At four years of age, or ſo, many ſuffered. A ſurgeon at Beccles, in a letter to a friend, affirmed, that a child of his, only eighteen months old, took the diſeaſe. This however is the only inſtance of the kind that came to my knowledge, though I have converſed with many, and made much enquiry on the ſubject in many parts of England. I had an evident example afforded me to prove how far the diſtreſſing paſſions prediſpoſed the body to be more ſeverely affected by it. Theſe always debilitate the habit by the conſtant uneaſineſs the mind undergoes.

A ſoldier in the light infantry was for ſome time violently in love with one of the Cyprian nymphs that follow the drum. She was young and handſome, and had ſo far engaged his affections, that he offered to marry her, though well acquainted with her way of life. She preferred her liberty, and refuſed him. This had ſuch an effect on his ſpirits, that, from a ſtout well-looking young fellow,

fellow, with all the health of a farmer's ſervant (for he was lately a recruit from the country) in a ſhort time he became thin and wan; he took the diſeaſe, not however when the others had it, but in the beginning of June, when the regiment marched from the villages aforeſaid to Royſton, on their way to camp. A day or two before this he had parted with his goddeſs at Luton. He ſuffered more from the diſeaſe than any other of my patients; and his caſe put on more of a remittent than any other I had ſeen.

Cauſe, not in the Air, but in a ſpecific Contagion.

I would not be underſtood, from what I have ſaid relative to the influence of the weather, that the cauſe of the diſeaſe is to be looked for in the air alone. This is only a prediſpoſing cauſe. Becauſe cold air can give birth to a common catarrh, are we to conclude it can give birth to the influenza? Cold moiſt air renders indeed the application of a *materies morbi* more effectual.

We

We have many examples to prove that the air cannot hold, nor yet convey contagion to any diſtance. If it be mixed with the atmoſpheric air, it is ſoon diſſipated, perhaps chemically decompoſed, if it be a compound body, and its nature altogether changed. Experience ſhews, that contagions have always been communicated by contact with the infected, either mediately or immediately, i. e. by perſons who bring it on their clothes to the perſons who receive it; or by its being conveyed from the infected in various kinds of goods. I mean here all ſpecific contagions, ſuch as the ſmall-pox, &c. or thoſe from human effluvia, ſuch as produce fevers of a dangerous nature. We are now well aſſured that the plague, the moſt infectious of all diſeaſes, is not communicated by the air, but by contact.

The Europeans who live in thoſe countries where it is endemic, and do not, like the Turks, believe in the deſtructive tenets of fatality, prudently ſhut themſelves up in their houſes, and with the utmoſt care ſhun the infected. By this precaution they eſcape.

Hence

Hence the plague is often found in one ſtreet raging with all its ſeverity, while the inhabitants in the next remain unmoleſted.

Bad weather may, and often does act on the human body ſo, as to debilitate it; by which means it becomes more diſpoſed to receive any diſeaſe that rages at the time. Whatever debilitates the body, we know has the ſame effect. In countries where intermittents prevail, they attack the weakly and debilitated; while the more robuſt paſs free.

The late Dr. Gregory was one of twenty-five young gentlemen who left Great-Britain to ſtudy under Boerhaave at Leyden; all of them, one excepted, lived pretty freely. He drank water for the moſt part, when the others drank wine; and he was the only one who ſuffered from an intermittent, during ſome years they purſued their ſtudies in this univerſity.

We are told by an accurate obſerver, that wet and cold weather is more injurious to our conſtitutions, than the ſame with moderate

derate warmth. Though the moiſt and warm be the moſt productive of acute and fatal diſeaſes, yet there is more danger, he tells us, in theſe reſpects, to our conſtitutions from the oppoſite. A ſteady ſet of any ſort of weather, he adds, may be productive of particular diſeaſes; and ſo is a quick tranſition from one extreme to another *.

We have already mentioned the unfavourable weather of this ſpring. From a meteorological regiſter, kept by Mr. Becket of Briſtol, we find, that in this city the month of April was for the moſt part cloudy and diſagreeable: rain, part of ſeventeen days; two days of ſnow; and not one day fair. The wind chiefly from the north and eaſt.

May was ſtill worſe. "This month," he ſays, "no doubt will be remarkable in all the meteorological annals of Europe, for its unuſual degree of cold and humidity, with a gloomy and uncommonly diſturbed ſtate of the atmoſphere. It rained there part of twenty days; and all the others were cloudy

* Dr. Fothergill. Vide Dr. Lettſom's Ed. 8vo.

and

and hazy; the wind generally between the ſouth and ſouth-weſt, frequently ſtrong."

The next month, June, we find very variable. In the beginning it was cold and rainy; towards the middle, about a week or ten days fair and warm; the latter part variable. A remarkable change is noticed, which took place between the 17th and 18th; for between one and two in the afternoon of the 17th, the thermometer ſtood as high as 89 degrees in the ſhade; and next day, in the evening, it ſunk as low as 55 *.

It has already been pointed out, that the attacks of the diſeaſe were not at the ſame time. If the cauſe lay in the air, all muſt have been ſeized at once; for though it often ſpread rapidly, it was ſtill progreſſively; ſometimes ſlowly and gradually.

Others have alledged that it took its riſe from the influence of the two ſuperior planets, Jupiter and Saturn, that appeared

* Vide Broughton on Influenza at Briſtol, 1782.

in

in a particular ſituation this year. An ingenious ſurgeon at Plymouth is among thoſe who embrace the opinion that the planets gave riſe to the influenza which viſited us ſome years prior to this *. If this be admitted once, it may be admitted again; therefore we ought to conſider how far it is founded in fact, before we aſſent to it.

That they might, by their great attraction and influence, joined to that of the other heavenly bodies that affect this terraqueous globe, be the cauſe of the unſeaſonable weather we experienced, I ſhall not venture to deny; but at the moſt this will prove no more than that this bad weather was favourable to the diſſemination of any infectious diſeaſe appearing at this time. No writer, as far as I know, maintains that it was always the influenza that raged at thoſe times when the planets were in ſimilar ſituations. Beſides, the diſeaſe has appeared when they were very differently ſituated; ſo that recourſe could not be had with the ſame reaſon to their greater influence on the

* Mr. Geach, F. R. S.

earth.

earth. I paſs over the opinion, as too ridiculous, that the moth frequent about London, called by Curtis the *Brown Tail Moth*, the caterpillars of which happened to be more than commonly numerous this ſpring, gave riſe to the diſeaſe. Thoſe who believed in this, muſt have very ſuperficially conſidered the ſubject.

That the true cauſe ſprung from another ſource, a particular *materies morbi*, a certain contagion, I think will not require many arguments to prove. The following few proofs may ſuffice:

The firſt who were ſeized with it at Norwich (I have it from good authority *) were two men lately arrived from London, where it then continued to rage. A ſerjeant of grenadiers of the 10th regiment of foot went to London on furlough: the diſeaſe then raged in the capital. He returned in a few days to St. Albans affected, and communicated it to the people in whoſe houſe he had his billet. This was the firſt of its appearance there: and

* Dr. Macqueen.

from

from thence it rapidly ſpread all over the town.

An officer of the ſame corps, being then in Dublin, told me he received it from a lady, in whoſe company he ſat at dinner. She was then complaining of indiſpoſition from it: he ſat next her. Before he left the room he was ſeized, and did not completely recover in two months; having loſt his voice great part of this time.

One of Lord Bute's labourers, living on the banks of the river at Luton, happened to receive a compound fracture of his thigh about the beginning of April; a month at leaſt before the influenza appeared there. When the reſt of the family were ſeized, though he had never been from his bed ſince the accident, yet he caught the diſeaſe, and ſuffered conſiderably. Here was no expoſure to the viciſſitudes of the weather. This fell under my own obſervation, as I attended him from the time of the accident till after the epidemic.

I escaped the disease myself, though daily visiting so many under it; till one day being at a clergyman's, and being desired to visit two of his maids then under it, and inspecting their throats, of which they complained, I received their breath full in my face, and thought at the instant it smelled disagreeably. Returning home about an hour after, I began to feel myself chilly with the sensation, as if something stuck in my throat. In ten minutes after, I had a discharge of thin mucus from my nose, began to sneeze, and felt a pain in my head. Though I had only four miles to ride to my lodgings, yet by the time I arrived, I felt myself extremely ill. Here must certainly be contagion; no quality of the air would satisfactorily account for this. Another example of its contagious nature might be drawn from the news; the Concert and Lizard men of war escaping it till they came to that part of the Thames, near Gravesend, called Long Reach *.

We might prove it still farther, was it necessary, from its gradual attack. This was

* Vide Lon. Medical Journal.

very obſervable in many families where I viſited. The houſekeeper of a gentleman on the oppoſite ſide of the ſtreet to that where I lived, was not ſeized till more than ten days after I recovered, though her maſter often viſited me while I lay under it. The lady likewiſe of the clergyman already mentioned, and her two children, had the diſeaſe ſome days before her maid ſervants were ſeized. Thus we find one was taken ill to-day, a ſecond to-morrow, and a third perhaps not till ſeveral days after. Is not this the uſual mode of ſeizure in all contagious diſeaſes?

Beſides, when we reflect on the ſymptoms of the influenza, we ſhall find them ſuch, in general, as denoted debility. Far more proſtration of ſtrength was united with it than we ever find attend catarrhs from cold alone; and I am led to think this forms one of its chief diſtinguiſhing ſymptoms. "A catarrh," ſays a certain writer, "from the ſituation of our iſland, and from the ſudden viciſſitudes of the weather, with reſpect to heat and cold, may with the ſtricteſt propriety be looked on as the endemic diſeaſe of Great Britain."

Britain *." But catarrhs from this ſource alone never bring with them ſuch loſs of the powers of exertion and univerſal aſthenia.

Whatever then may be the nature of this *materies morbi*, it is ſuch as always produces great alterations in the functions of the nervous ſyſtem.

Few diſeaſes, putrid fevers excepted, ever produced loſs of ſtrength and debility more ſuddenly than this. The crew of the Fly ſloop of war was an inſtance of this. The captain affirmed, that forty of his men fell ill in leſs than eight hours; ſeveral of whom, he declared, dropped down at the wheel as they ſteered the veſſel. This circumſtance obliged him to put back, and ſtand again for the Yarmouth Roads, which he had only left a few hours before, with all hands apparently well, merely for want of men to navigate her. The infection muſt have been received from ſhore, with which they had frequent communications.

* Vide Abuſe of Medicine, p. 57.

The

The ſubject of contagion is an obſcure one, were we to enter on it. Much indeed might be ſaid, but little at preſent with certainty. We might amuſe ourſelves with enquiring, Wherein conſiſts its difference, by which it can produce in the human body diſeaſes ſpecifically different? Why one kind ſeems to exert its force on the mucous membrane of the trachæa, noſe, &c. and produce fever, as in the diſeaſe under conſideration? Why another ſpends its fury on the ſkin, and perhaps cellular texture connected with it, as in the ſmall-pox? Why a third produces dangerous glandular ſwellings, both external and internal, on the throat, with bright red eruptions covering the ſurface of the body, as in a ſcarlet fever? But theſe, and other enquiries of this nature, it is proper to paſs over here, as it is matter of fact, not conjecture, I wiſh to confine myſelf to. Such ſhall be left in the ſtate we find them, enveloped in uncertainty and obſcurity, from which it is to be feared our preſent limited knowledge of the various combinations of matter will not allow us ſoon to evolve them; yet, as the knowledge of the human mind is pro-

greſſive, and every year adds to induſtrious enquiries ſome extenſion of phyſiological inveſtigation, I would not too raſhly conclude them inſcrutable. Was this inculcated, it would prove a check to induſtry, and become the nurſe of ignorance. Several things familiar to-day, in the beginning of the preſent century, ſeemed as inſcrutable as the preſent ſubject; and another ſeries of years may produce as material diſcoveries in the natural world.

Of the Fatality of the Diſeaſe.

In all the ſcope of country in which I was employed during its continuance, not one died immediately from it. My medical friends in London gave me much the ſame account. I find, however, by the bill of mortality, publiſhed in the third volume of Medical Tranſactions, that there were a great encreaſe of burials in May and June, which is attributed to it.

In Kent, we are informed, it was not dangerous. A gentleman reſiding near the coaſt,

ſays,

ſays, “ Few have eſcaped it; but I know not of a ſingle inſtance of danger *.” It was ſaid to be fatal in Jerſey; but ſome doubt may remain concerning the diſeaſe, as every complaint was denominated Influenza that appeared about this time. Mr. Friend of Newbury loſt only one patient; nor was he altogether certain whether the diſeaſe was influenza. From a curſory account of her ſymptoms, which he adds, “ I am inclined to doubt in like manner, as this caſe happened,” he adds, “ in June, when the influenza was prevalent here, I have been diſpoſed to think it partook of the epidemic, though the ſymptoms were ſomewhat diſſimilar.” Four in the practice of Mr. Binney, of the ſame place, died. Two of theſe, he ſays, were upwards of ſixty, and very infirm before the influenza ſeized them; the other two were alſo in advanced life.

At Royſton, I was told, “ few or none died there.” In the neighbourhood of Cambridge I found a man who had loſt his wife,

* London Medical Journal.

and, I think, he ſaid three children by it; but this is likewiſe doubtful; it might be at leaſt compounded with the ague: a diſeaſe frequent here. At Yarmouth, on enquiry, I found none died of it. I arrived there July the 6th, very lately after it had ceaſed. My correſpondent from Stamfordham (Mr. Scott) ſays it only proved fatal in this neighbourhood in three inſtances. At Ipſwich in Suffolk, I cannot learn that it proved fatal in a ſingle inſtance.

Cure.

Among the means of cure, various in various perſons, which have been had recourſe to, none is of more material conſequence to conſider than venæſection. On this head we ſhall beg leave to ſuggeſt a few things. Thoſe who contended that they found it uſeful and neceſſary, generally gave the appearance of the buffy cruſt as one of their reaſons. This, it is well known, is a very fallacious teſt. It appears on many occaſions, where V. S. is by no means warranted. We always find it in the blood of pregnant women, if their

pregnancy

pregnancy be any thing advanced; and we meet it often in the laſt ſtage of a conſumption, when the powers of the body are nearly exhauſted; likewiſe in dropſy, where we have little reaſon to ſuppoſe inflammation; and leſs ſtill that V. S. would prove uſeful.

The coagulable lymph may be ſeparated in whitiſh or bluiſh ſtreaks on the ſurface of the blood; yet the craſſamentum, if compared to the ſerum, may be very diſproportionate. It may be ſmaller in quantity, perhaps a thin pelicle; and even ſometimes not very accurately ſeparated from the ſerum. The craſſamentum, with this appearance, may almoſt diſſolve on handling; or the under ſide be ſo looſe, as to fall into pieces when taken up for examination.

It is needleſs to mention here, what every one knows who has attended to the ſubject, that the form of the cup the blood flows into, the ſize of the orifice, nay the very materials of which it is compoſed, with ſeveral things of this nature, are to be attended to

in

in forming an opinion reſpecting blood *. Hence, neither the preſence nor yet abſence of the buffy cruſt, is an abſolute guide to determine us for or againſt V. S. The denſity of the craſſamentum, the ſmall quantity of ſerum ſeparated, with perhaps its greeniſh colour, even ſhould no coagulable lymph appear, denote higher degrees of inflammation, and greater activity in the arterial ſyſtem oftentimes, than when the buffy coat covers the ſurface. The firſt drawn cup often ſhews none; the ſecond and third perhaps abound with it.

Inflammatory blood, denoting general V. S. is not only denſe, but the lymph on its ſurface, when it ſhews itſelf, is tough and thick; ſtill growing tougher by handling, contrary to what it does when it appears in debilitated habits. The craſſamentum is often found contracted on its ſurface, ſomewhat into the form of a cup, with the under ſide of the cake ſolid and firm. Nor ſhould we be led always to judge of the propriety of V. S.

* Vide Hay on the Blood.

even

even from the pulſe, without maturely weighing every circumſtance of the caſe, and ſymptoms with which it is attended. A ſmall pulſe ſhould not always deter us from the uſe of the lancet; nor yet a large pulſe, apparently ſtrong under the fingers, urge us to it; for the one, even from a trifling loſs, a few ounces, will ſometimes ſink, and proſtration and debility ſo rapidly follow, that all our endeavours may not be able to repair the injury occaſioned by it; while the other riſes as we continue to draw off the blood, and bears with manifeſt advantage a large loſs of blood. A dyſpnœa is another ſymptom for which V. S. has been commonly inſtituted; but here, likewiſe, the ſame caution ought to be obſerved, for it not unfrequently takes place from debility; and this is manifeſted from its often attending too much depletion. Every one who has ſeen it improperly inſtituted, and repeated for this ſymptom in rheumatiſm, will be fully convinced of the truth of this obſervation. Inſtead of remedying this ſymptom, every repetition encreaſes it, and the anxiety with which it is attended; and that, on a corroborating plan being

being purſued, it is as gradually and effectually removed. Theſe things duly attended to, ſhould teach us caution at all times in the uſe of the lancet. To theſe may be added, that the ſymptoms, as already obſerved in the influenza, were for the moſt part ſuch as to deter the cautious from V. S. even in thoſe caſes where it ſeemed admiſſible, it was to be done with care, and after nice obſervation.

We found that for the moſt part the pulſe was ſoft; indeed very rarely hard; that it was ſmall and debile; even ſeldom full, and betraying very little activity in the arterious ſyſtem; with pains in the back and loins, vertigo, rigors, &c.

Some inflammation I will allow: the ſtate of the mucus membrane proved there was a degree of it preſent. We know a degree of it exiſts in chronic rheumatiſm; yet V. S. is ſeldom advantageouſly uſed in this complaint; for if it be puſhed to any degree, a paralytic affection might be the conſequence, or other marks of aſthenia equally bad.

Who

Who would at this day think of employing V. S. in the putrid ſore throat? yet we find, from the authors who have treated on the ſubject, that the blood often ſhewed the buffy coat. Dr. Fothergill, ſpeaking on the ſubject, expreſsly ſays, after telling us the blood was of a freſh, florid colour, and the craſſamentum lax, &c. "But it is often ſizy when the diſeaſe has continued two or three days; and in ſome inſtances that lately occurred, it was ſo ſoon after the firſt attack *;" yet it is well known bleeding never cures it; nay, though it relieves for a little by taking off the ſenſe of plethora, and eaſing the breathing, it only ſerves, if often repeated, to weaken the ſyſtem, and reduce the miſerable patient ſtill farther.

I call it plethora here, whether in relation to the encreaſed quantity of the blood, or other fluids; or in the diminiſhed force of the heart, unable now to propel the blood, ſo as to dilate the artery with its accuſtomed eaſe. It is this laſt plethora that ſeems ſometimes to exiſt in hectic habits, where V. S. ſerves only to augment the degree of

* Vide Fothergill's Works.

debility.

debility. The blood is thereby leſſened in quantity, and thus the plethoric ſymptoms for a time relieved; but the veſſels ſoon accommodate themſelves to their leſſened contents, whereby a ſimilar ſpurious plethora is again induced. V. S. is repeated with a view to remove this ſenſation; and ſo on, till the powers totally ſink. I have ſomewhere read of an inſtance where the patient died under the operation.

In the Peripneumonia Notha of Huxham, we find him diſſuading from V. S. though at the ſame time he admitted the preſence of conſiderable inflammation. Practitioners in different parts of the iſland confeſſed, that in the epidemic, of which we are treating, little of the inflammatory cruſt appeared on the blood. This was the caſe at Yarmouth. The ſurgeons there found it always florid, and looſe in its texture. They bled however; but they obſerved it never gave that permanent relief which, from the ſtraightneſs of the cheſt, they expected from it.

In a letter from Stamfordham, I find that V. S. was pretty generally uſed in the beginning

ning of the epidemic; but they found reafon to alter the practice, as they became more acquainted with its nature. "But now," fays my correfpondent, "the difeafe has taken another turn. Though the patient complains of aches and pains all over him, particularly about the breaft; and if you bleed him, the inflammatory cruft, as it is called, manifeftly puts on its appearance; yet notwithftanding all thefe fymptoms, which indicate V. S. the difeafe, at leaft in our part of the country, does not bear bleeding; for the pulfe becomes weak, and there is great debility, and languor hangs upon them." In a fecond letter on the fubject, he fays, "at leaft it feemed to run a good deal into the low and putrid; fo that we were obliged to give cordials and antifeptics." Dr. Macqueen fays, the only one that died there was a man that had been twice bled; and he was of opinion this contributed to his death.

By what has been faid, I would not be underftood to mean a total diffuafion from V. S. in every cafe. I doubt not but the phlogiftic diathefis prevailed fo much in many patients, as to indicate V. S. and that much

much relief was afforded by it. Patients were differently affected, according to circumstances of habit, place, &c. When V. S. was used with proper circumspection to the nature of the epidemic, the habit, &c. and in the robust and strong, no doubt can remain of its utility; but this is far from that promiscuous use of the lancet, which I fear too often took place. It happened frequently that patients insisted on being bled: they never failed to find those who complied with their desire. "Many were bled by my young man," says a surgeon, "without advice."

I suffered from the disease severely, being ill upwards of three weeks, though but a few days confined to bed; the nature of my situation, and the number I was obliged to visit, preventing me from taking that care of myself which I recommended to others. My throat was much inflamed; the external fauces considerably swelled, with other symptoms of a phlogistic diathesis: yet from universal pains on motion, a lowness of spirits, rigors, and a slight vertigo, I would not suffer myself to be bled. I trusted to gentle diaphoretics, laxatives, and diluting drinks acidulated;

acidulated; with a linctus to mitigate the burning heat and pain I felt in my throat. Dr. Macqueen told me he ſuffered alſo much from it; and being ſubject to catarrhal affections, which V. S. always relieved, he had recourſe to it; but though he found it productive of ſome benefit to his head-ach for a ſhort interval, yet his complaints rather recurred with additional force; from which he concluded that V. S. did not give that permanent relief in the diſeaſe, as from the ſeeming inflammatory ſymptoms there was reaſon to expect. We find it was frequently tried both at Bath and Briſtol: it did not anſwer in either place *. Neither Sydenham nor Huxham ſpeak favourably of V. S. in the influenza; yet the latter eſpecially had good experience, ſince he practiſed in no fewer than in three epidemics of the diſeaſe. Dr. Fothergill †, ſpeaking on another occaſion of V. S. and diſſuading from its free uſe, unleſs we be perfectly certain of conſiderable inflammation of internal parts, has

* Vide Treatiſe on Influenza, by Broughton and Falconer.

† Lettſom's Edit. of Dr. Fothergill's Works, 8vo. Vol. i. p. 219.

 theſe

these words: "This is only intended as a caution to some, who have been taught to think that copious bleeding is indicated whenever a patient complains of pain in any part of the region of the thorax." And in another place he cautions us to judge of its propriety, "not from the appearance of the blood alone, for this will often continue sizy, till more be taken away than is compatible with the patient's situation in other respects;" "for if we lessen the vires vitæ," says he, "by inanition too much, a disease then takes place, which probably will encrease our difficulty; i. e. debility of the solids, and the consequent vitiation of the fluids. The pulse, the heat, the cough, respiration, strength, and age of the patient, should all be taken into consideration." "Many persons," he adds, "live free from complaints with sizy blood. The condition, therefore, of the blood singly, ought not to determine us: we should examine all the evidence *."

The recovery from the disease we always found slow in such as suffered most from it.

* Fothergill, vol. ii. p. 136.

So

So great was the debility, that it was weeks before the patient's ſtrength was perfectly recovered; though in others the diſeaſe was ſlight, and left little marks of debility behind it. This is ſtill a farther proof, that in general there was little of the phlogiſtic diatheſis in the ſyſtem. We never obſerve ſuch great debility after pleuriſy or peripneumony, except where phlebotomy has been injudiciouſly proſecuted; in ſuch caſes, indeed, the patient will not only be weak long after, but obnoxious to ſerous effuſions. The diſſections of induſtrious practitioners ſhew that theſe often follow inflammatory diſeaſes, where the lancet has been improperly uſed. "It is an undoubted fact," ſays a modern author, ſpeaking of V. S. "that repeated bleeding, without neceſſity, has greatly injured many conſtitutions. The catarrh may frequently attack delicate, relaxed habits, which are rendered highly irritable from exceſs of heat, and unhappily obnoxious to the diſeaſe from expoſure to cold. In theſe, as well as in more robuſt conſtitutions, the catarrh is often perfectly pure, unaccompanied with peripneumonic affections, or ſuch other ſymptoms as indicate bleeding *."

* Vide Abuſe of Medicine, p. 60.

Besides, I am apt to think our constitutions considerably changed within this last century in Great Britain. Luxury, and its enervating effects, render the diseases of this island less inflammatory than perhaps they formerly were. Diseases that in their nature were always, and even now are allowed to be phlogistic, have appeared within the space of these last thirty years, accompanied with a considerable degree of putridity, viz. the measles. We use less of the robuster exercises than formerly. Carriages are more frequent, delicacy greater; nay, many of our occupations, introduced by philosophy within the last century, are of a sedentary kind. Our amusements are of a less active nature; our articles of diet are in like manner changed, and infusions of tea, a debilitating liquor, injurious to the nervous system, is in such common use, that even paupers feed on it. Many among the poor drink it three times a day, making it their chief subsistence; among whom, both from its quantity and bad quality, it is productive of injury. We may add, the immoderate use of spirituous liquors; and of these much is to be attributed to gin. Many among the lower rank are so

habituated

habituated to it, that both health and ſubſtance ſuffer; hence often proceed jaundice, ſchirri, and various diſeaſes formed by obſtructions in the nobler viſcera. All theſe concur to ſtrengthen an opinion I have for ſome time entertained, that our diſeaſes partake much more of debility than of genuine inflammation, and that the ſyſtem cannot bear the ſame evacuations as formerly were in uſe; even in diſeaſes univerſally allowed to be of the phlogiſtic type.

To conclude. I am of opinion that the fever which accompanied this catarrhal affection, ſhewed in moſt places more marks of aſthenia than of phlogoſis; that V. S. has been oftener uſed in it than with permanent relief; and that ſhould we again be viſited with it, under the ſame circumſtances and train of ſymptoms, we ſhould profit by our late experience, and uſe the lancet with caution; never letting ſlip from our minds the nature of the contagion, which certainly appears from its effects to be of a debilitating nature; and ſince, to uſe the words of a certain author, "if V. S. be powerful in preſerving life, it is alſo powerful in deſtroy-

ing it *." Thus far of bleeding in the influenza.

The natural crifis of this complaint appears to be by the fkin ; diaphoretics, therefore, and diluents conftitute the chief part of the cure. Emetics, or rather naufeating dofes of antimonials, when early ufed, feemed very ferviceable ; they are diaphoretic ; they alfo prove expectorant when given in full dofes ; and in this fenfe they have been ufeful in the beginning of the difeafe. They generally prove laxative, cleanfing the primæ viæ ; nay they become hypnotic, for, generally fpeaking, the fleep of the fucceeding night is founder, efpecially when they have been exhibited in the evening. They open obftructions in veffels, whereby the different fecretions are more equally performed; and thus by one fimple medicine we have oftentimes various purpofes anfwered. A happy choice of a fimple, the dofe, and time of exhibition maturely weighed, will for the moft part anfwer better than a multiplicity of medicines jumbled in a prefcription, and fave the patient not only from much unea-

* Abufe of Medicine.

ſineſs, which would be created by loading the ſtomach improperly with medicines it abhors, but from unneceſſary expenditure of his money. A conſcientious phyſician will alſo have this in view.

Conſiderable advantage has likewiſe been obtained from the prudent uſe of opiates. Where the cough was ſevere, as was moſtly the caſe, they alſo determine to the ſurface. Though their chief uſe ſeems to conſiſt in the reſpite they give to the cough, the removal of irritation, and thus allowing time to the mucous membrane to recover its tone; by this means the diſcharge decreaſes, and the habit in the mucous glands to a vitiated ſecretion is thereby checked.

Nitre has been celebrated for relieving the cough; and I, with others, have ſometimes had recourſe to it. I would however be cautious in its frequent exhibition, as it ſometimes renders worſe the very ſymptom for the relief of which it had been adminiſtered. Others have made the ſame obſervation. "I have known," ſays Fothergill, "in common doſes of nitre, the ſaline

 draughts,

draughts, and other cooling ſalts, encreaſe a cough by irritation *."

I found a generous diet, where it was in the patient's power to procure it, highly conducive to a more ſpeedy recovery; and even in the courſe of the diſeaſe many bore a more liberal uſe of wine than is generally given in catarrhal affections from cold alone.

After what has been ſaid, I need ſcarcely diſſuade from the warmer ſudorifics, or the ſtronger purges. Theſe were always found as prejudicial, as diaphoretics and laxatives were uſeful.

A cautious diſcrimination between it and other diſeaſes appearing ſporadically at the ſame time, ſhould moſt certainly be kept in view; for where it proves thus compounded, the method of cure muſt alſo vary; and more or leſs of the inflammatory diatheſis prevailing, may lead to miſtakes with reſpect to the genuine nature of the diſeaſe. Not only the weather, ſituation, and conſtitution, but intercurrent diſeaſes, all unite to vary the ap-

* Vol. ii. p. 133.

pearance

pearance of the epidemic; to all of which the cautious and prudent practitioner ought ſtrictly to attend.

Pediluvium determines alſo to the ſurface, encourages a larger ſhare of the blood from the head and ſuperior parts to the lower, is generally followed by ſleep, relieves delirium, moderates the cough, and removes ſickneſs at the ſtomach, from the great ſympathy between this organ and all parts of the body; but eſpecially with the ſurface. Hence I frequently ordered it, and with advantage; but at firſt I was timid, conſidering the diſeaſe of a more inflammatory nature than a little practice taught me it was, and therefore never ſuffered the patient to ſit in the water above a few minutes; but from its inducing a quiet night's reſt, and was often followed by a gentle diaphoreſis, when aſſiſted with a few drops of antimonial wine, I continued it in many caſes to near half an hour; taking care not to keep the water at ſo high a degree of heat as to create too much ſtimulus, and produce an increaſed action in the arterious ſyſtem. This is another remedy, powerful in producing different, and even oppoſite

opposite effects according to the mode of its application, as is well known to practitioners.

I say nothing of blisters, as I had seldom occasion to use them in my practice. Others, I find, often tried them with good effects. Where vertigo or delirium occur, or where the breathing is difficult, they will doubtless have their utility; as also where languor prevails. They may raise the pulse where it is thought too low, by rousing the vis vitalis to greater action; or they may remove topical congestion. Though a blister may draw off but a small quantity of serum, yet much relief may be derived from it to the turgid vessels. This will readily be granted, when we consider how large a portion of the finer vessels so small a quantity as even half an ounce will fill, and how great an alteration will take place from thence in the balance of the system, by an over proportion to this amount in a given space; but whether their chief use was as evacuants or antispasmodics, it is affirmed they were followed by happy effects in this epidemic.

Practitioners in various parts found the

bark

bark uſeful. I doubt not but it was where the diſeaſe put on more of the appearance of an intermittent or remittent, and where it was accompanied with ſymptoms of putreſcency; which ſeveral affirmed it to be. In low ſituations, ſuch as the fenny parts of Cambridgeſhire and Lincolnſhire, where fevers from marſh effluvia are endemic, the bark, and antiſeptics and tonics muſt be more requiſite than in drier ſituations; but I forbear offering any farther remarks on the method of cure, for the ſame reaſon I omitted mentioning the other concomitant ſymptoms.

Although the diſeaſe, conſidered ſimply in itſelf, may be looked upon as of little conſequence, ſince it was often mild, and ſeldom fatal, if not improperly treated, either by bleeding, or by the uſe of too heating and irritating medicines, or by entire neglect, yet its cauſes, progreſs, and mode of attack may not be deemed altogether unworthy the attention of the medical philoſopher; and to afford ſome hints in furthering this enquiry, was my principal reaſon for collecting the foregoing.

I ought

I ought however to apologize for my prolixity, on a ſubject where ſo much has already been ſaid; but as I had early committed to paper a few thoughts on it, and laid them before the public *, I judged it expedient to continue my reſearches, that I might be the better enabled to ſupply things omitted in my former publication †.

ARTICLE XXXVIII.

Obſervations on Cancers, by HENRY FEARON, *Surgeon to the Surrey Diſpenſary, and* F. M. S.

Read September 22, 1788.

IN a paper of this kind, it is naturally expected that ſomething ſhould be ſaid concerning the cauſe, origin, and nature of the diſeaſe. Were I capable of throwing any light on this ſubject, it would give me inexpreſſible pleaſure to gratify this Society with a full and minute account; but I feel myſelf incompetent to ſuch an undertaking.

* Vide Short Account of Influenza, by R. Hamilton, 1782.

† For want of room in this Volume, the ſecond Memoir on the Influenza is poſtponed.

Were

Were I even to enter into the theoretical ideas of different authors, I fear I ſhould take up the time of the Society without affording inſtruction; and to recapitulate here what I have publiſhed on this ſubject, would be very unneceſſary, as I have there candidly acknowledged myſelf only converſant in the operative treatment of the diſeaſe; the nature and ſucceſsful medical treatment of which every modeſt practitioner in phyſic will readily acknowledge himſelf unacquainted with. If, therefore, I venture to hazard the opinion I have for ſome time been inclined to entertain of inflammation being the cauſe of cancer, or, in other words, that it is always connected with the diſeaſe in a greater or leſs degree, it is more with a deſign to excite the opinions of other practitioners, than from the vain attempt to elucidate perfectly a complaint hitherto enveloped in obſcurity. For from obſtructions, external injury, &c. inflammation in ſome degree enſues; and I am inclined to think, that were we to treat cancerous complaints, at an early period, as proceeding from inflammation, without entering into whimſical or abſtruſe reveries concerning the remote, latent, or prediſpo-

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nent cauſe of cancer, we would be much more ſucceſsful in practice. To this opinion and practice I was led by the incident I have mentioned in the firſt of the following caſes; and judging that from the ceſſation of the menſtrual evacuation there would for ſome time after be a greater quantity of blood in the conſtitution than it had been accuſtomed to bear, I thought advantage would be derived from ſubſtituting an artificial evacuation, inſtead of that which had ceaſed.

On this head I decline entering into the doctrine of plethora; being ſolicitous only to throw even the ſmalleſt ray of light on the practical part, leaving the theoretical to thoſe of ſuperior abilities, to whoſe department it more properly belongs *; and the more I reflect

* That inflammation is either the proximate cauſe of cancer, or always attends it, I am ſtrongly inclined to believe; but whether this inflammation reſults from plethora, from obſtruction, from the ſtructure of the part, or from ſome particular excitement therein, I do not preſume to determine. If it can be made appear that bleeding has removed a cancerous diſeaſe, I ſhall content myſelf with the importance of the fact; leaving the ſolution to phyſiologiſts. And the more I reflect on all

flect on all the practice I have seen, the more it tends to confirm me in this opinion; for in all cases where I have seen solanum, mercury, martial flowers, or arsenic given, they did harm; and if from cicuta or opium any advantages appeared to ensue, they were but of short duration.

The cure is very simple; and consists in bleeding, either topical or general, according to the seat of the complaint, or part affected.

In the beginning of scirrhous affections of the breast and testis, the mode I have adopted of taking away blood, is by leeches repeatedly applied to the parts. In this course, however, I have often been interrupted by the topical inflammation produced by these animals around the parts where they fastened. In delicate female habits I have often lost a week before I could proceed to the reapplication of them. When the symptoms lead me to suspect the stomach, uterus, or

all the practice I have seen, the more it tends to confirm me in the opinion that it has produced, and is capable of producing, under certain circumstances, this very desireable effect.

any

any of the viſcera to be ſo affected that the complaint either is, or moſt probably ſoon will become cancerous, I then have recourſe to general bleedings; but whether topical or general, perſeverance for a ſufficient length of time is neceſſary. Though the pulſe never indicated ſuch practice, yet the patients have not ſuffered by repeated bleedings; on the contrary, when they paſſed a certain time of loſing blood,they felt a return of their ſymptoms, and of their own accord deſired to be bled again. To this plan, or practice of repeated bleedings, I joined a milk and vegetable diet; avoiding wine, ſpirits, and fermented liquors, an open belly, and ſaturnine applications. I will give ſome caſes, by way of illuſtrating the practice more to the reader's ſatisfaction.

A poor woman, about fifty years of age, was admitted a patient at the Surrey Diſpenſary. She ſaid ſhe had long been in a bad ſtate of health; the cauſe of which ſhe could not attribute to any irregularity in living. She was of a delicate habit of body, and not accuſtomed to the uſe of ſpirituous liquors. She ſuſpected that her complaints originated

from

from her having been expoſed for ſome time to the inclemency of the weather, in 1785, in an open yard, as ſhe found herſelf generally indiſpoſed at that time, and went to bed, having taken ſomething warm, with the view of promoting the uſual diſcharge (of which ſhe had not any appearance for ſix weeks) and alſo to relieve a ſickneſs and pain at her ſtomach and back: ſymptoms which ſhe ſuppoſed to have ariſen from the obſtruction of her menſes. But in this flattering hope ſhe was much diſappointed, as they never after appeared, and her pains continued gradually to encreaſe and (to uſe her own words) extend all over her bowels, particularly after eating. Theſe ſymptoms continued without any intermiſſion (except of a few days at times) for ſixteen months; during which time ſhe had repeatedly applied to ſeveral regular, as well as itinerant practitioners, without meeting with the leaſt relief. Vomits, bliſters, purgatives, and every other remedy that had been tried, only encreaſed her complaints.

In the ſummer 1786, I firſt ſaw her at her lodgings in the Mint, with her head and

 ſhoulders

ſhoulders raiſed; reſpiration being difficult. She was moſt amazingly reduced in fleſh; her urine was ſmall in quantity, and high coloured; ſhe complained of thirſt, was coſtive, her pulſe ſmall and frequent. Her complexion was of a cancerous hue; ſhe complained of cold fits, attended with ſhiverings, and of a ſwelling on the right ſide of her belly; on examination of which I found the abdomen was conſiderably diſtended by the diſeaſe, which I diſtinctly felt conſiderably indurated. As I have already obſerved, ſhe was very much emaciated; her appetite had been on the decline for ſome time before I ſaw her; no ſolids would lie on her ſtomach, as a vomiting enſued ſoon after eating, attended with a diſcharge of blood, and very acrid offenſive matter. Purgatives had the ſame unhappy effect, ſo that her body was neceſſarily kept open by clyſters only; and ſhe was nouriſhed by liquids. All theſe ſymptoms encreaſed for ſome time after I ſaw her; when death eaſed her of the load of life, and freed her from ſufferings that exceed all deſcription.

Leave being obtained to open the body, the

the ſtomach was found to be the part diſeaſed. The great extremity was of a natural appearance, but contained a great quantity of a chocolate-coloured fluid, ſo extremely offenſive, that the ſmell of it produced immediate ſickneſs, even to thoſe accuſtomed to every kind of diſſection. The middle of the ſtomach, ſmall extremity, and pylorus, formed a compound maſs; which was cloſely united to all the neighbouring parts. On the middle and fore part of the ſtomach there was an ulcer of about the ſize of half a crown, with uneven ragged edges; through which ſome of the fluid was diſcharged into the cavity of the abdomen. The duodenum, ducts, and gall-bladder all adhered ſtrongly to the liver, and formed a maſs of great ſize. On being laid open, it diſcovered an extenſive cavity, with large cancerous knobs appearing on its ſurface; but whether this was the original cavity of the ſmall extremity of the ſtomach, or of that part of the duodenum running in its neighbourhood, or of the general adhering maſs deſtroyed by internal ulceration, is difficult to ſay.

Remarks.

The narrative of a caſe which is beyond the reach of our art, is not a pleaſing undertaking. A cancer of the ſtomach is one of thoſe melancholy caſes which is beyond the ſkill of the moſt eminent of our profeſſion: yet, as it is the duty of practitioners to avail themſelves of every opportunity of determining the preciſe nature of diſorders by diſſection, and of communicating them to the public, this caſe, and four other cancerous affections of the ſtomach, in my collection of diſeaſes, any gentleman of the Society, who will do me the honour of calling at my houſe, may examine. They are much more extenſive than any I have met with in any other collection, or read of either in Morgagni, Bonetus, or any other. Theſe caſes, therefore, may not be unacceptable to the Society, eſpecially as I flatter myſelf I have by accident been able to throw ſome light on the nature, treatment, and prevention of this loathſome diſeaſe; which I ſhall give in a brief ſtatement, juſt as the facts occurred.

Another reaſon, I might add, that three ladies,

ladies, who had apparently incipient cancerous affections of the ſtomach, who have by this means been cured, have requeſted that the ſymptoms and treatment might be made public.

CASE II.

In the year 1784, a lady in Clifford-ſtreet conſulted me about a lump ſhe had juſt diſcovered in her right breaſt. The firſt ſymptoms, ſhe ſaid, was a ſtretching fulneſs in the part, attended with an oppreſſion at the ſtomach. As theſe complaints were but ſlight, and exactly ſimilar to thoſe ſhe had been accuſtomed to preceding the appearance of her menſes, or what uſually ſucceeded conception, ſhe did not think it neceſſary to take an opinion of her caſe for a fortnight afterwards, when an increaſed hardneſs attended, with a darting pricking pain, particularly after being handled, very juſtly alarmed her. She was forty-nine years of age, and had no appearance of the catamenia for ſix weeks before ſhe had perceived the lump; which was clearly a ſcirrhous forming, that muſt in a little time require an operation. Between the ſeventh and eighth week from the

former appearance, ſhe had a plentiful flow of the catamenia, which laſted longer than uſual; during which time the lump ſubſided, and the pain went off entirely. We were agreeably ſurpriſed, and attributed the cure to the return of the menſes; and we agreed, when theſe ceaſed entirely, if her complaints returned afterwards, to ſubſtitute bleeding, to the amount of three or four ounces, every ſix weeks or two months, to keep her body open, and make her live abſtemiouſly; by which ſhe has remained free from a relapſe theſe three years.

I have met with a great many caſes ſince, at the ceſſation of the menſes, ſimilar to that mentioned; which I have treated with the ſame ſucceſs.

CASE III.

Elizabeth Robinson, being admitted a patient at the Surrey Diſpenſary in April 1784, ſaid ſhe kept a coal-ſhed in Bermondſey-ſtreet; and that ſhe had for ſix months been afflicted with a ſwelling and pain in her breaſt; that ſhe heard it was cancerous, and deſired my aſſiſtance. The tumor was incompreſſibly

compreffibly hard to the touch, and gave her very acute pain after being handled; the nipple was contracted, and the veins of the fkin varicous; the lancenating and darting pains encreafed with the difeafe. Being perfectly fatisfied that it was a true fcirrhus, I put her under a courfe of cicuta in as large quantities as fhe could poffibly bear; guarding againft its narcotic effects, and applying the *Aq. Veg. Min.* externally. By thefe means, and a proper regimen being obferved, fhe thought herfelf relieved for a time; but at the end of eight weeks, not receiving a cure, fhe became tired of my prefcriptions, gave up her letter of recommendation unknown to me, and I heard no more of her for two months, when fhe returned and gave me the following account; viz. She had been informed that the gentlemen of the Weftminfter Infirmary were famous for the cure of cancerous complaints; that fhe had been two months under the care of Mr. Juftamond, without experiencing much relief, and therefore was returned to fubmit to whatever I thought proper. I immediately took her under my care, put her upon a milk and vegetable diet, and ordered four leeches to be

 applied

applied every ſecond day. This plan ſoon produced a diminution of the ſize of the diſeaſe, pain, and all its concomitant ſymptoms; and in nine weeks ſhe returned thanks to Mr. Johnſon, the Governor who recommended her, being perfectly cured. From the loſs of blood ſhe became very thin and pale, inſomuch that her acquaintance apprehended ſhe was become conſumptive, and adviſed her not to loſe any more blood; but the uncommon benefit ſhe experienced induced her to perſevere, and ſhe ſoon recovered her health and vigour; which ſhe has enjoyed without the leaſt interruption ever ſince.

In a converſation with Mr. Juſtamond upon this caſe, he candidly acknowledged he had given the martial flowers and corroſive ſublimate, without the wiſhed-for ſucceſs.

CASE IV.

I WAS conſulted by Mr. ——, aged fifty-one, for a ſcirrhous of the teſticle, which had been two years forming; during which time, the ſize, weight, and pain had conſiderably encreaſed. The ſpermatic chord was a little

little thickened, and the teſticle hard and conſiderably enlarged. The darting pains were ſo frequent at times, as to deprive him of his natural reſt. The caſe having been ſuſpected to be venereal, he had been put under a well-conducted courſe of mercury for five weeks; which only encreaſed his complaints. Being an inhabitant of Colcheſter, ſea-bathing was fully and fairly tried without the leaſt good effect, on the ſuppoſition that his diſeaſe was ſcrophulous.

On his application to me, I did not entertain a doubt concerning the nature of his complaint; and therefore ordered ten ounces of blood from the arm, and leeches to be applied to the part at leaſt thrice a week. To this I joined an abſtemious regimen, and kept his body open. This plan was continued only ten weeks (during which time he was occaſionally ſeen by Mr. Hamilton, Mr. Beal, an India ſurgeon, and Mr. Day of Colcheſter) when he was perfectly cured.

CASE

CASE V.

A VERY delicate female, of reſpectable family, only nineteen years of age, who had not been married, was attacked with a ſickneſs at her ſtomach, attended with frequent vomitings, and pain in the region of her loins; which was encreaſed on bending her body forward. She alſo complained of great pains about the uterus, which ſhe deſcribed to be conſtant, extending down her thighs, with a frequent propenſity to diſcharge her urine; in paſſing which ſhe ſuffered conſiderable pain. It alſo ſtopped ſuddenly; the pain continuing for ſome time after. She had likewiſe a diſcharge of mucus from the urethra, accompanied with ſtraining and uneaſineſs. Her pulſe was quick and low (about ninety) as in hectic fever; her tongue white. She was ſometimes coſtive, and at other times ſubject to a diarrhæa, which continued for ſome days. Her phyſician, a gentleman of the very firſt eminence in town, preſcribed for her, and deſired ſhe might be examined with the ſound, as the ſymptoms gave reaſon to ſuſpect there was a ſtone

ſtone in the bladder. I accordingly examined her; but no ſtone was felt. The ſymptoms continuing, and encreaſing in violence, the Doctor prevailed on the lady to ſubmit to a ſecond examination, which ſhe complied with; but ſtill no ſtone could be found. To theſe complaints were added, during the laſt four months of our patient's life, the uſual ſymptoms attending on hectic patients.

I obtained leave to open the body; and on examination found the viſcera of the abdomen and thorax perfectly free from the leaſt appearance of diſeaſe. But on viewing the peritoneum, extending over the uterus and bladder, I diſcovered marks of inflammation; and on further examination, found all the contents of the pelvis conſiderably inflamed. Having laid open the urethra and bladder, I found the inflammation general and uniform throughout both, without the leaſt appearance of a ſtone.

On opening the uterus, I found a ſcirrhus of the cervix uteri; which unravelled the cauſe

cause of our patient's death, and which had produced the inflammatory appearance throughout the contents of the pelvis.

I have thought proper to record this case, as a very important one; because it proves, that, at a very early period indeed, this disease may prove fatal; we should therefore be so far on our guard, to expect the existence of this disease at any period of life, when the symptoms lead us to form such opinion; which, had we done in this case, we might probably have saved our patient, by adopting the plan I have just ventured to recommend. Another circumstance in this case, highly deserving attention, is, that a disease of the uterus may produce symptoms very similar to those of a stone in the bladder.

Conclusion.

To those very important facts of bleeding being a specific, in the early stages of scirrhous complaints, I must also add, that, even in apparently reduced and shattered constitutions, when the disease has been of long continuance,

continuance, attended with affections of the lungs, fcirrhus of the kidnies, liver, or any of the vifcera; and laftly, with cholicky pains in the bowels, a cadaverous countenance, becoming yellow, wan, and fallow, the difeafe being entirely beyond operation, cicuta and opium failing in their ufual heavenly effects, fmall bleedings have the moft happy, the moft immediate, and the moft defireable good effects in mitigating the fufferings of the patient; whofe approaching fate we are unable to prevent.

To thofe cafes many more might be added; but I think the facts fufficient; in confirmation of which, I have the pleafure to inform the Society, that any member who will call on me may have ocular demonftration of three cafes I have at prefent under my care, which are yielding to this method of cure.

APPENDIX.

Some Account of the Effects of Lightning, by Mr. J. Parkinson, *of Hoxton, Surgeon, and* F. M. S.

Read February 4, 1787.

ALTHOUGH the circumftances related in the following paper may not merit attention, either from their novelty or curiofity, yet it is hoped they will not be thought entirely ufelefs and uninterefting, as, perhaps, by being compared with other accounts of fimilar accidents, they may afford fome fmall affiftance in the inveftigation of the nature of the electric fluid, and of its mode of acting upon the animal fyftem.

During a violent ftorm, which happened on Tuefday, July 17, 1787, a houfe in Crab-tree-

tree-Row, near Shoreditch Church, was much damaged by the lightning; two men alſo, one of whom was within the houſe, the other paſſing by, were ſtruck by it at the ſame time.

My attendance being requeſted, I immediately repaired to the houſe, which I had no ſooner entered, than I was diſagreeably affected by a ſtrong ſulphurous ſmell, which, although it was, according to the accounts of the perſons preſent, conſiderably leſſened, was yet extremely pungent, and very different from that peculiar odour produced by the electrical machine, even when batteries of conſiderable magnitude have been diſcharged; the ſmell in the preſent inſtance more reſembling that which is occaſioned by the burning of ſulphur.

My attention was firſt called to the man who was paſſing by the houſe when the lightning ſtruck him. He had been taken up to all appearance dead, and by the accounts of the neighbours, had remained in that ſtate upwards of a quarter of an hour; but when I ſaw him, the vital organs had reſumed their

their functions, although ſo very imperfectly as to render the circumſtance of their having been ſuſpended highly credible. Reſpiration was performed with much difficulty and irregularity; and the circulation of the blood ſtill carried on ſo partially, as not to be diſcoverable at all by the pulſe in the lower extremities, nor without extreme attention in the arteries at the wriſt; although the pulſation of the carotids, at the ſame time, was not perceptibly different from that which might be ſuppoſed to be natural. His head was bent conſiderably backwards; in which ſtate it remained immoveable, notwithſtanding his endeavours, and thoſe of his attendants, to bring it forward. His countenance was fluſhed; and his eyes, which he had almoſt loſt the power of moving, were red; and in conſequence of their not being both directed to the ſame object, appeared wild and ſtaring; which appearance was farther increaſed by the eyelids being widely opened, and the pupils conſiderably dilated. His hands and legs reſembled thoſe of a corpſe, being exceſſively cold, and of a dark livid colour, nearly approaching to black. A large red ſtreak appeared on his right ſide, and

ſeveral

ſeveral leſſer ones on his legs; the ſkin in all thoſe places being evidently ſcorched. He complained of a total loſs of ſenſe and motion in the lower extremities, and of much pain in the head and cheſt: which laſt was aggravated by a frequent cough, by which a conſiderable quantity of blood was thrown up.

The ſymptoms appearing to me to point out a congeſtion of blood in the head and lungs, ſix ounces of blood were taken from the arm, though with much difficulty; conſtant friction of the arm being found neceſſary to produce the diſcharge of even this quantity; by which, however, the head and cheſt were much relieved. He was then put to bed between the blankets, his legs and hands being wrapped in flannels wetted with volatile liniment; and a draught was given him, containing 18 grains of the volatile alkaline ſalt, which was waſhed down with half a pint of weak brandy and water, as hot as could be drank. An univerſal ſweat ſoon broke out, which was followed by an eaſy ſleep; from which he awoke ſo much relieved, that, when I ſaw him two

hours after, his head and cheſt being free from pain, the ſpitting of blood ſtopped, the muſcles at the back of the neck relaxed, and the uſe of the limbs reſtored, I had him removed in a coach to his own houſe at Limehouſe *.

The other man was in a ſhop up one pair of ſtairs, and near the window at the time of the accident. He laid ſenſeleſs, I was informed, for ſome minutes; but when I ſaw him he was conſiderably recovered. Like his fellow-ſufferer, he complained of pain in his head and cheſt, and difficulty of breathing; but he had no ſpitting of blood. His hands had the ſame cadaverous appearance which was obſervable in the lower extremities of the other man; and, if poſſible, in a greater degree, as the fingers, towards their ends, were ſhrivelled and black; his legs alſo were affected in the ſame manner, but in a leſs degree. A red ſtreak, about two inches wide, paſſed down his right ſide; from which, on each ſide, ſeveral ramifications branched

* I have ſince been informed by him, that a pain came on ſo violent in his hands and legs, as to confine him for a fortnight afterwards.

out,

out, exactly representing in figure those vivid corruscations which are so frequently seen to fly off from any little pointed elevation on the surface of an electrized insulated conductor. A similar, but lesser streak, with similar branches, appeared on his right arm, and on the fore part of each leg and thigh. From all these he felt considerable burning pain. One of his sleeve-buttons was melted, but his wrist was not in the least burnt; the skin being only discoloured, as if with smoke. One of his buckles was also melted in two places, in the part nearer the leg, and in that nearest the toes; by which his foot was rather deeply burnt. He was treated in every respect like his fellow-sufferer, and with the same beneficial effects. By the next day he was entirely free from all his complaints, except the burning pain which he still felt where the lightning had so beautifully marked him. This, however, was soon lessened by the use of a saturnine lotion; the streaks becoming in two days time of a brownish colour, and in a few days more no other vestige remained than the roughness of the cuticle, which was then peeling off.

Upon examining the houſe, the tiles were found to have been broken by the lightning in ſeveral places; the frame of a ſaſh-window, on the ground-floor, was ſplit where the hinges were fixed, and one of the hinges was driven, at its upper end, nearly half an inch into the wood; whilſt the lower end was, with the nails, raiſed up to about the ſame diſtance; the iron at this end being evidently melted. The glaſs was broken, and the lead of the ſhop-windows, up one pair of ſtairs, melted in ſo many places, as to ſhew plainly that the lightning had taken its courſe in ſeven or eight different lines on the outſide of the houſe, as indeed might have been expected, from the houſe having been wetted by the preceding ſhower *. Wherever the lightning had changed its conducting ſubſtance, there it had left evident marks of its power; and this appeared to be in proportion to the difference of conducting power between the two ſubſtances.

* It is well known, that if the electric ſpark be made to paſs over a non-conducting ſubſtance, the ſurface of which is thinly covered with water, the ſtream of electric fire will be ſplit into ſeveral leſſer ones, which will paſs on to the neareſt conducting ſubſtances.

Thus,

Thus, by its paſſage from the bricks to the wood, but little injury was done; but when it reached the iron hinges, the wood was ſplit and the iron melted. And again, where it had paſſed from the frame of the window to the lead, the lead was melted and the glaſs broken, and covered with a black impalpable powder.

One circumſtance, which was obſervable in each of the men, merits more particular attention, as it ſeems to mark plainly the mode in which lightning affects the animal ſyſtem; the circumſtance alluded to, is the change of colour which took place in the extremities. Theſe, when I firſt ſaw them, were, as I have already ſaid, nearly black; but upon friction being uſed to them, they became of a deadly white; which hue they preſerved as long as the friction was continued; but upon the omiſſion of that, the former colour returned. From this circumſtance aroſe a very ſingular appearance on the legs of the younger of the men; for, previous to friction being uſed to them, the ramifications, which were then of a deep crimſon, were diſplayed on a dark purple

ground; but after the legs had been rubbed a few ſeconds, the ground became white, and the branches of a pale pink.

May it not be ſuppoſed, from the above appearances, that the blood-veſſels of the limbs had ſo far loſt their contractile power, in conſequence of the exceſſive action produced immediately before by the violence of the ſtimulus which had been applied, that the arteries were no longer able to protrude the blood; but remaining inactive, or nearly ſo, ſuffered the blood to paſs into them, which required the aid of friction to urge it back through the veins to the heart? That the electric fluid acts as a ſtimulus upon the animal ſyſtem, muſt, I believe be allowed; but that its ſtimulating effects are more tranſient, and the ſucceeding ſtate of debility conſequently more rapidly produced than what reſults from the application of any other known ſtimulus, muſt, I think, be alſo allowed. Strongly illuſtrative of this were the effects which followed the application of electricity to a youth who was drowned. He had been under water upwards of one hour; and two hours more had been ſpent in fruitleſsly

fruitlefsly attempting to procure his recovery. At this time I faw him, and having in my pocket a portable electrical machine, I was induced to make trial of the effects of electricity; as foon, therefore, as a fmall charge of the phial was fuppofed to be procured, I, to try the ftrength of the charge, took the fhock, making one arm of the youth a part of the circuit made by the electrical fluid. The fhock to me was trivial, but its effects on the arm of the corpfe furprized me; for the arm, hand, and fingers, which were extended, were, as if convulfively, bent at every joint. The difcharge of the phial was repeated, but with much lefs effect; and by the third difcharge, fcarcely any fenfible effects were produced; nor after this could any alteration be difcovered, although feveral much ftronger charges were made to pafs through the arm. The quantity of irritability therefore, which had been fo ftrongly retained for upwards of three hours after death, was, by three difcharges of the phial, exhaufted in as many minutes.

CASE.

A MAN about forty-five years of age applied to me on account of a trifling hurt on

his ſhin; obſerving, that he had been but too liable to ſuch accidents ſince he had had the misfortune to loſe his ſight. On aſking him the cauſe of his blindneſs, he informed me, that about ſeven months before, he had been ſent one ſtormy night by his maſter, a farmer at Edmonton, to houſe ſome cattle; and that whilſt he was in the field a flaſh of lightning, of amazing brightneſs, came acroſs his face, and at the ſame inſtant he heard a loud clap of thunder; that he was ſtruck down, and unable to riſe for ſome ſeconds, but was not deprived of his ſenſes in the leaſt; that he immediately felt exceſſive pain in his eyes, which, however, ſoon went off; but that he had ever ſince been entirely deprived of his ſight. Never having had an opportunity of examining the eyes of any one who had been ſaid to have been ſtricken blind by lightning, I deſired him to let me examine his eyes; to which he readily conſented. The eyelids were very cloſely ſhut, and had rather the appearance of a flat than a convex ſurface, which induced me to expect I ſhould find the eyes themſelves conſiderably leſſened in their dimenſions, if not totally deſtroyed. After ſeveral unſucceſsful

ful

ful attempts to force open the eyelids, I was ſo entirely foiled that I ſhould have deſiſted, had not the man himſelf anxiouſly preſſed me to make another trial. I therefore renewed my endeavours, and at length forced them open ſo far that I could diſtinctly perceive the eye ſtill retained its natural figure, and that the cornea was ſtill bright and tranſparent, but the pupil was exceedingly contracted. The moment the eyelids were raiſed from before the pupil, he cried out in ecſtaſy that he ſaw the light; but added, that it gave him ſuch acute pain that he could not bear it any longer, and begged that the eyelid might be ſuffered to cloſe. He had ſeen, he ſaid, a blaze of light, as bright as that which had firſt deſtroyed his ſight. After reſting a few minutes, he intreated me to force them open again, that he might once more ſee the light; I therefore again repeated my attempts, and with ſtill greater ſucceſs, as I now opened them wider, with leſs force than I had before been obliged to employ. The contraction of the eyelids, which immediately ſucceeded, ſeemed alſo to be leſs violent; but he could not

not yet diſtinguiſh any particular object, owing to the anguiſh he felt as ſoon as the light darted on the retina; nor was it until this troubleſome operation had been repeated ſeven or eight times, that he could diſtinguiſh the frame of the window. The contraction of the eyelids being much leſſened, and a ſlight inflammation of each eye having come on, we for that time deſiſted from any further efforts. The eyes were ordered to be conſtantly bathed with cold water; and as the violence of the ſpaſm was evidently leſſened by the application of external force, he was recommended to force them open two or three times in the remaining part of that day.

When I ſaw him the next day, the inflammation was much leſſened, and viſion was tolerably diſtinct, and accompanied with conſiderably leſs pain; the diſpoſition in the eyelids to contract was alſo ſo much leſſened, that very little external force was neceſſary to open them. In two or three days more he had recovered the free motion of the eyelids; and excepting an exceſſive ſenſibility

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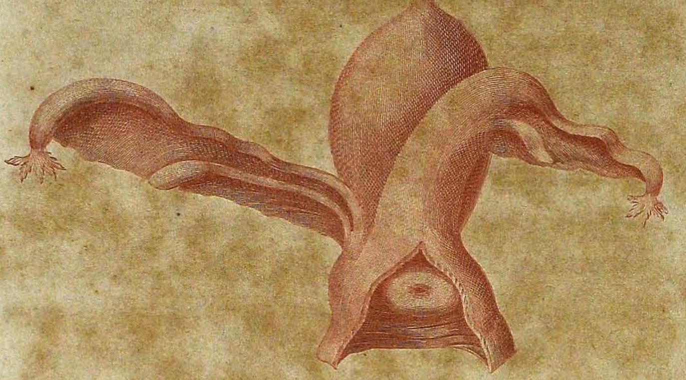

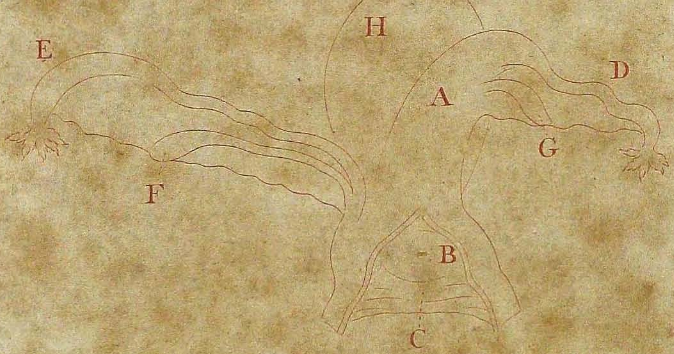
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lity of the retina, which ſtill remained, was without complaint.

It ſeems as if the exceſſive brightneſs and ſudden flaſh of the lightning had brought on ſo ſtrong a contraction of the orbiculares palpebrarum, that it ended in a ſpaſm of the muſcles; which ſpaſm continued until become by external force.

An Account of ſeveral Phænomena which occurred upon opening the Body of a Female Infant of Premature Birth, who died a few Hours after Delivery, by T. POLE, *Surgeon.* F. M. S. *To which is annexed an Engraving of the Uterus.*

Read September 22, 1788.

I WAS induced to open the body of this infant, from obſerving an unuſual enlargement in the region of the liver; which viſcus proved to be conſiderably larger than is uſual even in the fœtal ſtate. In examining the other abdominal viſcera, I found but one

one kidney, and that on the right ſide; and in the place of the left was found the capſula renalis. Looking into the pelvis, I alſo obſerved a luſus naturæ of the uterus and appendages. The uterus itſelf was of a conical figure, with its apex incurvated toward the right ſide; and immediately from the apex aroſe the right fallopian tube, about its natural proportion and figure; the ovarium was alſo on that ſide attached to the uterus, near its apex. The left fallopian tube aroſe from the inferior part of the cervix uteri, and was nearly twice the length of the other; the ovarium at that ſide was at a very conſiderable diſtance from the uterus. Through the right fallopian tube quickſilver paſſed freely into the uterus, but not through the left.

EXPLANATION OF THE PLATE.

A. The uterus.
B. Os uteri.
C. A portion of the vagina.
D. The right fallopian tube.
E. The left fallopian tube.
F. The left ovarium.
G. The right ovarium.
H. The urinary bladder.

On the 24th of September, 1787, Mr. JAMES HILL HOOPER, *Surgeon, and one of the Secretaries of the Medical Society, communicated a Caſe of an Hæmorrhage from an Ulcer in the Penis.*

G—— T——, aged about twenty-ſeven years, had been taking mercurials of his own preſcribing, for a month before he applied to me, June the 22d, 1787, for the cure of a venereal ulcer, ſituated upon the ſuperior part of the glans penis, and nearly the ſize of a ſixpence. In about ten minutes after he left me, he was obliged to return haſtily, in conſequence of a very conſiderable hæmorrhage from the middle of the ulcer; but which was ſoon ſtopped by the application of lint and flour. In the evening it returned with great violence, and being myſelf engaged, and my aſſiſtant, who was with him, not able to ſtop the hæmorrhage, Mr. Foſter of Broad-ſtreet was ſent to, who was ſo

ſo obliging as to attend immediately; and from having frequently ſeen the good effects of the lunar cauſtic in ſimilar caſes, very judiciouſly applied it in the preſent, over the whole ſurface of the ulcer, with apparent good effect; as the hæmorrhage was reſtrained for that night, and the two following days; on the third it returned ſlightly, but on the fourth very violently. Mr. Foſter was again ſent to, and finding the above method ineffectual, had recourſe to the needle and ligature; by which means he ſecured the bleeding veſſel, which remained in that ſtate for ſome days.

The patient had by this time loſt a very conſiderable quantity of blood, conſequently was very much reduced; we therefore gave him the decoction of bark, with elixir of vitriol; but on the 2d of July another very violent hæmorrhage came on, which, from his now emaciated ſtate, threatened a ſpeedy diſſolution, as his pulſe was ſcarce perceptible.

It

It had occurred to me before, to make uſe of the ſponge, which, however, I omitted, from an expectation that the other methods would have proved ſucceſsful; but as they did not, I now applied a piece of ſponge, adapted to the ſize and ſhape of the ulcer, which was by this time much encreaſed; I then poured a ſtrong ſolution of *Vitr. Cærul. in Aqua*, upon the whole, which immediately ſtopped the hæmorrhage.

My attention was next called to check that diſſolved ſtate of his blood, which was evidently the cauſe of his repeated bleedings; for which purpoſe I gave him, beſide the bark, which he ſtill continued the uſe of, one mixture with the *Sal. Abſinth.* and another with a ſufficient quantity of *Succ. Limon.* to produce an efferveſcence in the ſtomach; and on the following day I had the ſatisfaction to find my patient rather better, without the leaſt appearance of hæmorrhage. In about ſeven days the ſponge came away without any pain, and left a clean granulating ſurface; which in about three weeks perfectly

perfectly healed without any further unfavourable ſymptom.

He continued the uſe of his medicine about ten days, and is now perfectly reſtored to his health and friends.

Two Experiments on the Mechaniſm of Vomiting, Supplementary to a Paper lately read before this Society on that Subject, and inſerted at page 254. *By Mr.* JOHN HAIGHTON, *Surgeon,* F. M. S.

IN the paper which I had lately the honour of reading, I attempted to prove that the mechaniſm of vomiting was inexplicable from any force inherent in the ſtomach; and that the moſt violent ſtimuli, when applied to it either externally or internally, were inſufficient to produce a regurgitation of its contents, without the concurring efforts of the diaphragm and abdominal muſcles.

It would have been then in order to inquire whether the aſſiſtance which the diaphragm

diaphragm and abdominal muſcles afforded, was equal to this effect without the ſtomach: and whether in the affair of vomiting, this viſcus be conſidered only as a paſſive organ, as has been argued by Bayle, Chirac, and Duverney: but my attention was at that time diverted from this inquiry by the intervention of other purſuits.

While I was engaged on a ſubject, which at firſt ſeemed but little allied to the preſent, the idea ſuggeſted itſelf. Being about to divide the par vagum of a living animal, I was naturally led to contemplate its diſtribution; and to conſider in how great a degree it contributed to the functions of the ſtomach; and likewiſe what changes would be induced upon that organ from a privation of its influence.

Experiment. I expoſed the par vagum about the middle of the neck of a dog, and having, by careful diſſection, ſeparated it from the carotid artery with which it intimately coheres, I cut it through. The ſame was performed on the oppoſite ſide. A very violent and diſtreſſing ſickneſs immediately enſued,

great reſtleſſneſs, frequent and violent efforts to vomit very ſoon ſupervened, though no emetic had been given. During theſe efforts, the abdominal muſcles ſeemed to act with great force; and notwithſtanding the continuance of them for upwards of two hours, nothing was diſcharged. In a few hours afterward he died.

Upon examining the ſtomach, it contained a conſiderable quantity of food which had been taken about an hour before the experiment.

As the nauſea, which in this inſtance ſeemed to be the natural conſequence of the experiment, was inſufficient to produce vomiting, I wiſhed to aſcertain how far the torpor which had been induced upon this organ by the diviſion of its nerves could be ſuſpended; and whether the violent nauſea (which had in this inſtance been attended with fruitleſs attempts to vomit) could be carried into effect by the ſtimulus of an active emetic.

Expe-

Experiment. Having divided the par vagum of another dog in the manner defcribed in the laft experiment, ten grains of Emetic Tartar, diffolved in two ounces of water, were immediately forced into his ftomach. The fame reftleffnefs and naufea enfued, but never difcharged any thing from the ftomach, although frequent attempts were made: at length a dyfpnœa fupervened, and in about eight hours he died.

On examining the ftomach, its internal coat was very much inflamed at its right extremity, and about half a pint of reddifh coloured fluid, tinged with blood, was contained in it.

From the experiments made, both in this and in the preceding part of the paper, with a view to explain the mechanifm of vomiting, the following conclufions are deduced.

Firft. That the ftomach, though excited by powerful ftimuli, is unable to difcharge its contents, if the affiftance of the diaphragm and abdominal mufcles be taken away.

Second. That the moſt vigorous exertions of the diaphragm and abdominal muſcles, unaided by efforts of the ſtomach, are equally futile. And,

Third. That vomiting can only be produced by the concurrence of them both.

The Hiſtory of Hydatids diſcharged with the Urine, communicated by* FEILDING BEST FYNNEY, *Eſq. of Leek, Surgeon, and* C. M. S.

Read November 3d, 1788.

ABOUT eighteen years ago, I tapped Sarah, the wife of Thomas Rowley, of Ipſtones, in the county of Stafford, and took from her nineteen pints of water; ever ſince which time ſhe hath enjoyed a tolerable ſtate of health, having never had the leaſt appearance of a return of the aſcites; till on Tueſday, April 29th, 1788, her huſband

* Some of theſe hydatids were ſent to the Medical Society, which appeared exactly ſimilar to thoſe deſcribed and figured at page 32 of this volume.

came

came and informed me, that, on Sunday the 27th, ſhe was ſenſible of a ſenſation, as though ſomething ſnapped (to uſe her own expreſſion) within her belly, about the region of the bladder; that, ſoon after, ſhe had a difficulty of parting with her water, which was tinged with blood, with ſubſtances from the ſize of a pea to that of a duck's egg (the largeſt ſizes being burſt) but without ſhells, and ſimilar to wind-eggs, floating in it, which I told him were hydatids. The next day he ſent me a few, and the day following (May 1ſt) I viſited her; on which day ſhe had parted with ſome of the largeſt ſizes, and on the ſucceeding day with two; ſince which none have paſſed, but ſhe hath been in exceeding great pain; hath frequently parted with her urine in ſmall quantities, conſtantly of a deep coffee-colour, and, as it were, by a ſpaſm upon her bladder; for no ſooner an inclination to paſs urine came on, than it guſhed involuntarily away from her.

On Monday, May 12th, I viſited her, paſſed the catheter, and brought away about four ounces of turbid urine, with ſome pus,

 and

and a little gravel; by which ſhe was much relieved.

I intended, on the ſucceeding day, May 13th, to have cleanſed her bladder, by alternately injecting a balſamic and detergent waſh with a ſyringe, and as often drawing it off with a catheter; but from that time ſhe would neither take any medicine, nor ſuffer any thing to be done to the part, but languiſhed till the 22d, when ſhe died.

It is probable that the ſnapping ſhe was ſo very ſenſible of, might be occaſioned by the burſting of one of the larger cyſts in the bladder.

The excruciating pangs ſhe laboured under, were palliated, during my attendance, by anodynes, aperients, and diuretics.

It may be neceſſary to mention, that ſhe had never been pregnant, but had menſtruated regularly ever ſince ſhe was tapped.

My

My patients being numerous, and ſituated at a great diſtance from each other, I had not an opportunity of obtaining permiſſion to open the body.

FINIS.

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Dr.

INDEX.

C

Page

Camphor, Remarks on, by Dr. Percival - 54
——— by Mr. Chamberlaine 317
Calico Shirt, ſteeped in Bark, Uſe of - 299
Camphorated Julep, Remarks on - 323
Catheter, Account of - - 339
Cancers, Obſervations on, by Mr. Fearon 473
Church, Mr. on the Aſcaris Lumbricoides 63
——— on the Muſca Cibaria - 70
Chamberlaine, Mr. on the Solvent Powers of Camphor 317
Cicuta, Caſe of - - - 328
Conſtipation of the Bowels, by Dr. Adair 236
Conſtipation of the Bowels, by Dr. Falconer 73
——— Remarks on - 82
Cold Water in Conſtipation of the Bowels 73
Conyngham, Dr. Cornelius, on the Tetanus 114
Copper, Effect of - - - 224
Contagion of the Influenza - - 413
Cynanche Pharyngæa, by Dr. J. Johnſtone 177
Clyſters, inefficacy of, in ſome caſes of Ileus 239

D

Deglutition obſtructed, deſcribed by Dr. Bayford 271
Digitalis Purpurea, Account of, by Dr. Lettſom 145
Donations - - - 521
Dropſical Complaints, Remarks on, by Dr. Farr 132
Dropſy encyſted, deſcribed by Dr. Windſhip 368

E

Electricity, Effects of, in Palſy - 226
——— in Tetanus - 138

Emetics

Emetics in Palsies, Effects of - 222
Emetic Tartar, On the external absorption of 386

F

Falconer, Dr. on cold water in Constipation 78
——— Remarks on Constipation 82
——— Observations on the Palsy - 201
Farquharson, Dr. on a Scirrhous Œsophagus 357
Farr, Dr. Samuel, on Cantharides in Dropsies 132
Fatality of the Influenza of 1782 - 450
Fearon, Henry, Observations on Cancers 473
Fothergill, Dr. Anthony, on the Gummi rubrum astringens Gambiense - - 93
Fynney, Fielding Best, Esq. on Hydatides from the Kidnies - - - 516

G

Gamboge, Experiment on - - 322
Gummi rubrum astringens Gambiense, by Dr. Fothergill 93
Guaiacum, Gum, Experiment on - 321

H

Hawkes, Mr. Case of Hydatides Renales 41
Hayes, Mr. Thomas, on an unusual Affection of the Tongue - - - 185
Haighton, Mr. on the act of Vomiting - 250
——— additional Experiments - 510
Hæmoptysis, Remarks on, by Dr. Percival 303
——— how treated by Dr. Rush - 306
Hair found within the Abdomen - - 371
Hamilton, Dr. on the Influenza - - 418

INDEX.

Hæmorrhage of the Penis, by Mr. James Hill Hooper 509
Heartfell Spa, Remarks on, by Dr. Percival 57
Hooper, Dr. Joſeph, on the Lacerated Uterus 118
——— Mr. John, on Cicuta - - 328
——— Deſcription of a Luſus Naturæ - 332
——— on an Obſtinate Opthalmia - 334
Hooper, Mr. J. Hill, on an Hæmorrhage of the Penis 509
Hydrophobia, Account of, by Dr. Sims - 1
Ὑδροφόϐȣ Περὶ - - - 3
Hydrophobiæ Cauſa - - 6
Hydatides Renales, by Dr. Lettſom - 32
————— by Mr. Fynney - 516
Hutchiſſon, Dr. John, on Electricity in Tetanus 138

I

Ileus, Obſervations on, by Mr. Bureau - 227
————— by Dr. Adair - 236
Influenza of 1782, by Dr. Hamilton - 418

J

Jaundice, Caſe of, by Dr. Percival - 62
——— Cure of, by Dr. Sims - 283
Johnſtone, Dr. James, on the Cynanche Pharyngæa 177

L

Lettſom, Dr. Hiſtory of Hydatides Renales 32
——— of the Digitalis Purpurea in Dropſies 145
——— on a Diſeaſed Rectum - - 309
Lead, Effect of - - - - 223
Lightning, Effects of, by Mr. Parkinſon 463
Lunacy alternating with Phthiſis - 301

Luſus

Lufus Naturæ, by Mr. Hooper - 322
Lucas, Mr. James, on the Management of Women in Pregnancy - - 406

M

Mafon, the Hon. George, Communications on the Tetanus - - - 114
Machine, Defcription of, in a Hiftory of a Cafe of Ileus 235
Maftich, Gum, Experiment on - - 321
Mercury, Effects of, in Palfy . - 225
Medical Cautions on Pulmonary Difeafes, by Dr. Percival - - - 288
Mufca Cibaria, Account of, by Dr. W. White 67
——— Remarks on, by Mr. Church 67
Myrrh in the Cafe of Phthifis - - 297
——— diffolved by Camphor - - 58
——— Experiments on - 319, 322, 326

N

Nitre, Effects of, by Dr. Percival - 296

O

Œfophagus, fcirrhous, by Dr. Farquharfon 357
Opium in Palfies, Effects of - - 223
Ophthalmia, Cafe of - - - 334
Orange Juice, Effects of - - 335

P

Palfy, Obfervations on, by Dr. Falconer - 201
Parkinfon on the Effects of Lightning - 493
Percival, Dr. on the Solvent Powers of Camphor 54

Percival, Dr. Remarks on Hartfell Spa - 57
———— Case of Tussis Convulsiva - 59
———— on a Disease of the Trachea Arteria 60
———— on some Appearances in the Jaundice 61
———— Extraordinary Case of Vision 63
———— Medical Cautions and Remarks 288
Phryganea Grandis, Account of - 71
Phalæna Pinguinalis - - 71
Peripneumonia, Case of, related by Dr. Percival 292
Pin, Puncture from, Effects of - 373
Porter, in certain Cases of Phthisis - 299
Pole, Thomas, on a remarkable Spasmodic Affection 373
———— on the Dissection of a Lusus Naturæ in an Infant - - 507
Purgatives in Palsies, Effects of - 222
Pulteney, Dr. on an extraordinary Enlargement of the Abdomen - - 261
Pulmonary Disorders, Remarks on, by Dr. Percival 238
Prostrate Gland, enlargement of - - 336
Pregnancy, on the Management of Women in 406

R

Rectum, scirrhous, by Dr. Lettsom - 309
Rush, Dr. on the Tetanus - 108, 114

S

Salt, common, in Hæmoptysis - 306
Sagapenum, Gum, Experiment on - 321
Sanguis Draconis, Experiment on - 322
Sims, Dr. Translation of Περὶ Ὑδροφόϐα - 3
———— on the Cure of the Jaundice - 233
Sherwen on the Scirrho-contracted Rectum 9

Sherwen

Sherwen on External Absorption of Emetic Tartar 390
——— of Arsenic 398
Scirrhous Rectum, Observations on, by Mr. Sherwen 9
Shoaft, Mr. John Thomas, on the Tetanus 103
Skelton, Mr. on the Cure of the Jaundice 289

T

Tabes Nutricum, Observations on - 43
Tetanus, Case of, by Dr. Rush - 108, 114
Tongue, an unusual Affection of, by Mr. Hayes 189
Tolu Balsam, Experiments on - - 324
Tussis Convulsiva, Case of, by Dr. Percival 59
Trachea Arteria, Disease of, by Dr. Percival 60
Tumor of the Abdomen, described by Dr. Pulteney 265

U V

Uterus lacerated, Account of, by Dr. Hooper 118
Urine, Suppression of, how treated - 340
Vaughan, Dr. on Vomiting in Pregnancy 125
Vision, remarkable Case of, by Dr. Percival 62
Vomiting in Pregnancy successfully treated by Dr. Vaughan - - 125
——— Experiments on, the Action of 254

W

Walker, Dr. Remarks on the Atrophia Lactantium 43
Ware, James, on Suppressed Urine - 340
Winship, Dr. on an incysted Dropsy - 367

Z

Zinc, Effects of, in Palsy - - 230

DIRECTIONS for placing the PLATES.

Plate		Page
1.	Hydatides Renales - -	32
2.	Aſcaris Lumbricoides, and Muſca Cibaria	67
3.	Machine uſeful in the Ileus -	239
4.	Repreſentation of Dyſphagia Luſoria	279
5.	Figure of a ſcirrhous Rectum -	320
6.	Figure of a Catheter, and diſeaſed Proſtate Gland - -	360
7.	Scirrhous Œſophagus - -	371
8.	Figures of a Cyſt, &c. taken from the Abdomen	376
9.	Figure of a Luſus Naturæ of the Uterus, and Appendages - -	507

F I N I S.

LONDON, March 1, 1794.

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